



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: 3-24-2022

PROJECT TITLE: Wildlife-Human Incident and Communication Analysis on Federal Public Lands in the Greater Yellowstone Ecosystem

ABSTRACT: (not to exceed 150 words)

An on-site questionnaire will help identify effective communication strategies for the public to address wildlife-human conflicts in the Greater Yellowstone Ecosystem (GYE) across the landscape. Visitors will be surveyed about wildlife safety communication content, sources of information, information distribution and visitor information reception around across the GYE. The results of this collaborative, multi-agency study will provide a mechanism for more effective and consistent communication efforts around wildlife-human interactions for agencies and organizations in the GYE.

PRINCIPAL INVESTIGATOR CONTACT INFORMATION:

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PROJECT INFORMATION:

Where will the collection take place? Yellowstone National Park, Grand Teton National Park, and Bridger Teton National Forest

Sampling Period Start Date: 7/1/2022

Sampling Period End Date: 9/31/2022

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 – Tablet

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.

Visitor safety is an ongoing concern for managers in Yellowstone National Park, Grand Teton National Park, and Bridger Teton National Forest. Parks and forests with larger ungulate and carnivorous populations are impacted by visitor disturbance, proximity, and food conditioning often resulting in visitor-wildlife conflict. Park and forest managers need effective communication tools and strategies to maintain visitor safety and the health of wildlife population. This social science research survey elicits visitors' perceptions and experience with national park and national forest communication efforts to educate visitors on appropriate behavior around bears to prevent negative bear-visitor interactions and promote visitor safety. The survey will allow an increased understanding between agency personnel and visitors to improve bear-visitor communication efforts and contribute directly to the improvement of program management and how to best disseminate information to visitors, and most importantly keep visitors and park staff safe.

When it comes to keeping wildlife and visitors safe, visitors' wildlife values orientation, personal experience, and perceived social norms can impact visitor perceptions of, and compliance to, wildlife safety recommendations. Visitors who perceive a behavior request (e.g., carry bear spray) from a message as important or relevant have higher rates of compliance (Miller et al., 2017). This underscores the importance of strategic communication efforts that are relevant to visitors. Visitors may also be exposed to various communication sources including different social media platforms, newspapers, and/or signage along hiking trails and areas frequented by wildlife. Assessing changes in wildlife-human incidents overtime and exploring messaging campaigns that target wildlife-human conflict, supplemented by a deliberation with other coordinating agencies across the GYE that engage in wildlife-human interaction communication efforts will help to inform transboundary, multi-agency messaging recommendations.

Yellowstone National Park, in coordination with university, Park Service, and Forest Service collaborators, will collect, analyze, and interpret information gathered through this project to identify strengths and weaknesses of messaging efforts to provide recommendations for improved communication with visitors. As a result, this will improve the quality of the service offered to the public (e.g., well-informed visitors may be less likely to have negative interactions with bears).

SURVEY METHODOLOGY

(A) Respondent Universe:

All adults (18 years of age and older) visiting Yellowstone National Park, as well as Grand Teton and Bridger Teton National Forest from July 1 to September 31, 2022.

(B) Sampling Plan / Procedures:

The proposed study will use an on-site survey to assess the visitor experience and reception of wildlife safety messaging in the Greater Yellowstone Ecosystem targeting Yellowstone National Park, Grand Teton National Park and Bridger Teton National Forest. A random sample of potential respondents will be intercepted as they exit visitor centers and vehicles in parking areas. There will be a total of 10 sampling days in each location that will be stratified by day of the week from 8AM to 4PM, and location, for a total of 30 sampling days.

Sampling Period: July 1, 2022

End Date: September 31, 2022

It is expected that approximately 1,500 will be contacted during the 30-day sampling period. It is anticipated that 50 visitors will be intercepted per day, and, of those visitors, 30 visitors will complete surveys per day during the sampling period. The goal is 1,500 contacts, resulting in 900 completed surveys- 300 surveys completed at each of the three sites across the 30 sampling days.

Table 1. Estimated Number of Visitor Contacts

Location	Sampling Period			TOTAL
	July	August	September	
Yellowstone National Park	175	175	150	500
Grand Teton National Park	175	175	150	500
Bridger Teton National Forest	175	175	150	500

TOTAL	525	525	450	1,500
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Researchers will use a random number generator to employ random sampling methods using. Numbers will be generated between 0 and 60 for each hour with the goal of intercepting approximately 6-7 visitors an hour and anticipating a 60% survey participation rate.

(C) Instrument Administration:

Researchers will ask individual visitors to complete the on-site survey regarding wildlife-human communication in the GYE. Researchers will provide instructions to visitors and a handout to use to complete the survey. Visitors will work through the survey using the handout and verbally presenting answers to researchers who will input the visitors' responses on an electronic tablet.

Researchers will employ the following script during the initial contact with potential survey participants:

Hello, my name is _____. I am working with the National Park Service and Forest Service to understand the effectiveness of our wildlife safety messaging. I am conducting a short survey for to gauge visitors' experiences with wildlife safety messaging in Yellowstone National Park, Grand Teton National Park and Bridger Teton National Forest. Your participation is voluntary, and your responses will be anonymous. Your responses will help agency managers with current messaging efforts and help to determine if the current messaging and approaches to messaging need to be modified. The survey should take no more than 9 minutes to complete. Would you be willing to participate?"

If the visitor responds **"no"**: *Do you mind if I ask you a few short questions?*

- *"What is the group size you are traveling with?"*
- *"Are you a first-time visitor to this park/national forest?"*

Thank you for your time and consideration. I hope you enjoy your visit.

If the visitor responds **"yes"**: *"Thank you for your willingness to participate. (If this person is part of a group ask the following to select the participant):*

To get started, may I ask, who in your group is at least 18 years old and has the closest birthday to today? Would you be willing to participate in the study? "

Researchers will administer surveys using a tablet and enter responses for respondents at a safe distance due to Covid-19 considerations.

Expected Response Rate / Confidence Level:

It is expected that approximately 1,500 visitors will be contacted during the 30-day sampling period with approximately 50 contacts per days. Previously studies, such as the 2017 Grand Teton String Lakes visitor study received an 87.1% response rate (D'Antonio, et al., 2018). Owing to the ongoing Covid-19 pandemic, we anticipate a lower response rate and are estimating a 60% response rate (n=900). Visitors unwilling to participate will be asked to respond to two non-response bias questions. We anticipate that at least 60% (n=360) will agree to answer the non-response bias questions when prompted. The sample size will be approximately 900 respondents (300 at each site).

Table 2. Anticipated Onsite Survey Response Rates

Location	Total Number of Visitor Contacts	Expected Number of Responses (60%)	Expected Refusal (40%)	Expected to Fill out Non-Response Survey (60% of refusals)	Expected to not fill out Non-Response Survey (40% of refusals)
YELL	500	300	200	120	80
GRTE	500	300	200	120	80
Bridger Teton NF	500	300	200	120	80
Total	1,500	900	600	360	240

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

To encourage full completion of surveys, survey questions will be pre-tested and reviewed by researchers and colleagues. To reduce non-response bias and encourage high response rates at all locations, a pre-determined intercept approach and script will be developed which includes a personable and professional introduction and relevance of the study. The survey will be relatively brief as to not burden participants and encourage participation. Researchers will assess non-response rates using two non-response questions from the survey:

- "What is the group size you are traveling with?"
- "Are you a first-time visitor to this park/national forest?"

Data from the study will be analyzed for non-response bias by comparing participant groups' characteristics to non-participant groups' characteristics and reported.

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

This research uses similar methods and questions that have been used in previous NPS visitor use studies. Survey questions are borrowed from the NPS Pool of Known Questions and are adapted for appropriate context. Survey peer review of methods and the instruments was conducted by National Park and National Forest colleagues and university partners. Feedback was incorporated into the survey instrument, including simplifying language, including additional

response options for certain questions, eliminating unnecessary questions to reduce survey time, and adding a demographic question. Methods are consistent with previous survey research conducted in study locations.

BURDEN ESTIMATES

The total burden for this collection is estimated to be 141 hours. This includes the time to complete the on-site survey, 135 hours (900 respondents x 9 minutes), combined with the time to complete the non-response bias survey, 6 hours (360 respondents x 1 minute).

Table 2. Estimated Annual Burden Hours

	Completed Responses	Completion Time * (minutes)	Estimation of Burden to Complete (hours)
Completed Non-response Bias Surveys	360	1	6
Completed Survey Responses	900	9	135
Total burden requested under this ICR:	0		141

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

REPORTING PLAN:

The survey data will both contribute to recommendations of how to best formulate bear safety content and disseminate information to visitors. In regard to reporting findings, researchers will share findings with resource managers as well as survey findings at a bear safety workshop in the fall. A final report and a publication will be outcomes of this work.

References

D'Antonio, A., Taff, B.D., Monz, C., Newman, P., Baker, J., Rice, W., Freeman, S., & Miller, Z.D. (2018). Leigh and String Lake Visitor Use Study at Grand Teton National Park: 2018 Data Collection Summary. *Report prepared for the National Park Service*. The Pennsylvania State University.

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.
