



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: 7-2-2024

PROJECT TITLE: Visitor Use and Experience Survey at Capitol Reef National Park

ABSTRACT: (not to exceed 150 words)

Capitol Reef National Park (CARE) is currently in the initial steps of visitor use management and recreation planning development. As part of numerous data needs cited for an upcoming recreation management plan, a visitor use and experience survey designed to indicate visitor experience thresholds has been listed as a high priority. This survey will focus on several key front-country recreation sites within the park to understand visitors' experience, perceptions of crowding, and management preferences. Understanding these landmark experience thresholds will allow for appropriate transportation planning actions, and subsequent planning adaptation based on repeated persons-per-view-scape monitoring to help track changes and management decision impacts related to crowding.

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PROJECT INFORMATION:

Where will the collection take place? Capitol Reef National Park (CARE)

Sampling Period Start Date: 10/14/2024

Sampling Period End Date: 10/28/2024

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 – Type of Device: Android Tablets

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.

In 2021, Capitol Reef National Park (CARE) requested assistance from the NPS Regional Office for Regions 6, 7, and 8, and the Denver Service Center to initiate planning efforts that will address increasing and changing visitation to protect park resources and enhance visitor experience in front-country areas. This request initiated a preliminary project planning (P3) process that resulted in a Front-country P3 Completion Report¹. Specific areas of interest identified during this P3 Process were The Fruita Historic District and adjacent popular front-country areas along Utah State Route 24 (SR 24) and Scenic Drive. Specific sites and trailheads in this area include The Fruita Historic Orchards and campground, Hickman Bridge (off of SR 24), Grand Wash (accessible by both SR 24 and Scenic Drive), and Capitol Gorge (accessible by Scenic Drive). A major result of this P3 process was a recommendation for a front-country visitor use management plan, and the completed report identified a list of data needs for this upcoming planning process. The report cited a need for a Visitor Use Survey to "understand visitor expectations, experiences, activities, behaviors, and values" and that "development of visitor experience thresholds needs to be part of the survey efforts". A follow-up meeting with park staff in July 2022 identified additional questions and themes related to front-country use in these areas. Based on these highlighted data needs, the following Research Questions were developed and used to determine survey questions selected from the approved Pool of Known Questions:

RQ1: What type of experience are visitors looking for in Capitol Reef?

RQ2: What is the relationship between visitor experiences of connection to CARE resources and the types of crowding responses visitors employ?

RQ3: At what point is the visitor experience impacted by crowding?

RQ4: At what point do people feel conditions are unacceptable and will no longer visit?

As part of evaluating visitor experience thresholds, People Per Viewscape (PPV) preferences will be measured at appropriate scenic sites using simulated crowding images (uploaded in ROCIS as a supplemental document). This is an established method of measuring crowding impacts on the visitor experience and is referenced in the Interagency Visitor

¹ NPS. (2021) *Frontcountry Preliminary Project Planning Completion Report*. Capitol Reef National Park.

Use Management Framework². Multiple other regional national parks have current PPV thresholds in place (e.g. Arches National Park³). These crowding thresholds allow managers to monitor conditions and visitor crowding tolerance and experiences over time. Park managers at CARE do not have historic PPV data, this survey will help establish baseline conditions. These baseline conditions will be used for long-term planning purposes to determine when PPV estimates excessively impact a visitors' experiences.

SURVEY METHODOLOGY

(A) Respondent Universe:

The respondent universe is all adult visitors (18 years old and older) visiting the sampling locations in the park during the study period. The sampling will focus on the peak visitation period of October.

(B) Sampling Plan / Procedures:

Responses will be collected using an on-site intercept survey at specific front-country sites in the park, including Hickman Bridge, Cassidy Arch, and Capitol Gorge. These sites are important landmarks with high visitation and noted parking congestion issues due to constrained geography. Appropriate image simulation points have been identified in these areas.

A random sampling of visitors will be intercepted by a survey technician on their return to the trailhead to measure their experience at that respective site. For trailheads with multiple trail options, the technician will confirm with the respondent which trail they used and whether they visited and reached the specific destination site (Hickman Bridge, Cassidy Arch, or the Pioneer Panel). Based on the location of the trail, it will be clear when individuals are on their return trip, and this will be confirmed. The survey administration will be overseen by the park's Outdoor Recreation Planner, as well as the University of Wyoming Principal Investigator.

According to previous visitor use data, the population estimate for these trails ranges from 40,000 to 100,000 across sites. The highest population site (100,000) was used for sample size estimation. Necessary sample size was calculated using the Qualtrics Sample Size Calculator tool⁴. A 95% confidence level and 5% margin of error is recommended for parks, recreation, and human dimensions of natural resources studies⁵. To reach a 95% confidence level and 5% margin of error, a minimum of 385 responses are needed per site, for a total sample of 1,155 visitors. With an anticipated 80% response rate, 481 visitors should be intercepted per site (1,444 intercepts).

Survey collections will occur for 7 hours a day between the visitation hours of 8:00 am to 6:00 pm. Previous data from traffic and trail counters in the park have identified this timeframe as peak visitation hours in the park. One surveyor will be stationed at each survey location during the intercept period. Surveyors will randomly intercept every Nth visitor/visitor group on their return from the destination, resulting in a target of 28 completed surveys per day per

² IVUMC [Interagency Visitor Use Management Council]. (2016) *Visitor Use Management Framework: A Guide to Providing Sustainable Outdoor Recreation, Edition One*. N.p.: IVUMC.

https://visitorusemanagement.nps.gov/Content/documents/lowres_VUM%20Framework_Edition%201_IVUMC.pdf

³ Tendick A et al. (2023). Pilot Timed Entry System at Arches National Park in 2022. 2297386. National Park Service. Fort Collins, CO

⁴ Qualtrics. (2023). *Sample Size Calculator*. Provo, UT. <https://www.qualtrics.com/blog/calculating-sample-size/>

⁵ Vaske, J. J. (2019). *Survey research and analysis*. Sagamore-Venture. 1807 North Federal Drive, Urbana, IL 61801.

surveyor. This will result in a total sample of 1,176 completed surveys (392/site), which is slightly above the 1,155 goal. This slightly elevated sample will allow for some incomplete or otherwise ineligible surveys to be removed during data cleaning and analysis. To maintain an 80% response rate with this sample size, 1,470 visitors will be intercepted (490 per site).

To achieve the target sample size, the research team will sample for 14 days, the goal for each survey technician will be 5 intercepts and 4 completed surveys per hour, leading to 35 intercepts and 28 completed surveys/surveyor/day. Sampling days will be evenly split between days of the week and time periods (i.e. 8:00-3:30 and 10:30-6:00) (Table 1).

Table 3. Example on-site intercept survey schedule with expected initial contacts

		Site; Surveyor (A, B, C); Intercept/Completed Surveys (in parenthesis)					
Sampling Day	*Date	Time Block i 8:00-3:30; ii 10:30-6:00	Hickman Bridge	Cassidy Arch	Capitol Gorge	Daily Total	Cumulative Total
Training /scouting	Sun 10/13	x	x	x	x	x	x
1	Mon 10/14	i	A (35/28)	B (35/28)	C (35/28)	105/84	105/84
2	Tue 10/15	ii	C (35/28)	A (35/28)	B (35/28)	105/84	210/168
3	Wed 10/16	i	B (35/28)	C (35/28)	A (35/28)	105/84	315/252
4	Thu 10/17	ii	A (35/28)	B (35/28)	C (35/28)	105/84	420/336
5	Fri 10/18	i	C (35/28)	A (35/28)	B (35/28)	105/84	525/420
6	Sat 10/19	ii	B (35/28)	C (35/28)	A (35/28)	105/84	630/504
7	Sun 10/20	i	A (35/28)	B (35/28)	C (35/28)	105/84	735/588
off	Mon 10/21	x	x	x	x	x	x
8	Tue 10/22	ii	C (35/28)	A (35/28)	B (35/28)	105/84	840/672
9	Wed 10/23	i	B (35/28)	C (35/28)	A (35/28)	105/84	945/756
10	Thu 10/24	ii	A (35/28)	B (35/28)	C (35/28)	105/84	1050/840
11	Fri 10/25	i	C (35/28)	A (35/28)	B (35/28)	105/84	1155/924
12	Sat 10/26	ii	B (35/28)	C (35/28)	A (35/28)	105/84	1260/1008
13	Sun 10/27	i	A (35/28)	B (35/28)	C (35/28)	105/84	1365/1092
14	Mon 10/28	ii	C (35/28)	A (35/28)	B (35/28)	105/84	1470/1176
Total	16 days	i (7); ii (7)	490/392	490/392	490/392	1470/1176	

*Survey dates provided are for the proposed spring data collection period. The rotation across times, days of the week, and sites will stay the same

(C) Instrument Administration:

This survey will use an android tablet and digital survey software (Qualtrics offline) for response collection. The Persons Per Viewscape (PPV) crowding images will be printed, laminated, and provided in binders so that the survey respondent can see the images clearly (see supplemental document in ROCIS for images). Survey administrators will approach the potential respondent or respondents and randomly select the respondent from the group based on 1) which individual has the closest birthdate, and 2) their eligibility as an adult. The purpose and length of the survey will be explained. If the visitor agrees to participate, the survey technician will then verbally administer the survey to provide explanations/answer questions throughout. If the visitor does not agree to participate, surveyors will ask if they would be willing to answer the brief non-response bias questions and thank them for their time regardless of response.

Sample Script for Survey:

"Hello, I am working with Capitol Reef National Park conducting a 9-minute survey to improve visitor experiences in the park. May I ask you questions about your experience in the park today?"

NO – *"Do you mind if I ask you three quick questions?"* The surveyor will thank the visitor and ask them to answer the three questions that will serve as a non-response bias check.

YES – The surveyor will begin the on-site visitor survey with the recruited individual after reading the Paperwork Reduction and Privacy Act below and providing them with the fill Paperwork Reduction Act and Privacy Statement at the start of the survey. The surveyor will hand the survey on an iPad tablet to the recruited individual. Upon completion of the on-site survey, the respondent will be thanked for their time.

Before we begin, I would like to let you know that this survey has been approved by the Office of Management and Budget. It is important to note that a federal agency may not conduct or sponsor, and you are not required to respond to a collection of information unless it has a valid OMB control number. The control number for this collection is XXX and this number is valid through XXX. Secondly, your participation is voluntary, and your name will never be connected with your responses. This survey will only take about 10 minutes of your time today.

Three potential outcomes are expected following the request to participate:

1. Complete approval and completion of the survey.
2. Partial refusal, where non-response questions are answered (soft refusal).
3. Complete refusal (hard refusal).

Photograph Component

As part of establishing experience thresholds, visitor tolerance to crowding will be measured based on the number of PPV.

Photos were developed to reflect a varying number of people at scenic landmarks in each area. These photos, as well as a brief explanation of their development, are attached as a supplemental document in ROCIS. These viewscapes have been selected based on key management sites where the image simulation / PPV method is suitable. The exact image

viewscape locations have been selected after consultation with regional visitor use experts from the National Park Service, as well as Utah State University. Initial baseline monitoring of these viewscapes occurred in Fall 2023, to help determine the current average number of persons-per-viewscape, to establish appropriate hypothetical crowding potentials at each site, and to help test and troubleshoot the suitability of the viewscape image site. Visitors will be shown each image at their intercept site and asked a series of questions based on the acceptability, preferences for management, and similarities between conditions in the photos and their own experience. Images were produced and administered using techniques established by previous PPV and normative threshold studies, such as the Old Rag Mountain Visitor Use Study completed in 2020⁶.

(D) Expected Response Rate / Confidence Level:

We expect to intercept a total of 1,470 visitors. Of those, we expect 80%⁴ (n=1,176) to agree to complete the on-site survey. Of the 20% (n=294) who refuse to participate, we expect 80% (n=100) to answer the three non-response questions and 20% (n=25) to completely refuse to participate. We anticipate a 95% confidence level and 5% margin of error (for more information, see section B, Sampling Plan and Procedures).

Table 4a. Anticipated Onsite Survey Response Rates

Total Number of Visitor Contacts	Completed Onsite Surveys (80% of contacts)	Refusals (20% of contacts)	Completed Non-Response Surveys Soft Refusals (80% of refusals)	Hard Refusals (20% of refusals)
1,470	1,176	294	235	59

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

All soft refusals will be asked to respond to the following questions, which will serve as the non-response bias check:

If NO – “Do you mind if I ask you three quick questions?”

- “Are you a first-time visitor to Capitol Reef?” (Yes/ No)
- How crowded did you feel *during your hiking experience* at [survey site]? Check one box.

Not at all crowded	Slightly crowded	Moderately crowded	Very crowded	Extremely crowded
1	2	3	4	5

- “What year were you born?” _____

Answers to these questions will be compared to those who completed the survey to identify if any non-response bias exists based on site familiarity, sensitivity to crowding, and age demographics. Response weighting will be applied to data if non-response is identified, and implications will be discussed with NPS staff/stakeholders.

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

⁶ RSG (2020). *Old Rag Mountain Visitor Use Study*. Report completed for the NPS. <https://parkplanning.nps.gov/document.cfm?parkID=274&projectID=103975&documentID=114821>

The questions in the survey come from the NPS Pool of Known Questions (OMB Control Number 1024-0224). The survey has been tested in numerous stages to determine participant's understanding of the questions, and to ensure the length is appropriate. Further, established social survey methods and strategies were used during the development of the survey (Dillman 2014⁷, Vaske 2019⁸). Feedback and review were provided at multiple stages of survey development by Capitol Reef staff, as well as regional NPS social scientists and other social scientist professionals familiar with visitor use surveys. The PPV photographs were reviewed by an external reviewer familiar with PPV image development. Pre-tests of the survey were conducted with graduate students familiar with the area, to assess question clarity and estimate burden.

BURDEN ESTIMATES

We anticipate contacting a total of 1,470 individuals, resulting in a total of 1,411 completed responses (1,176 on-site surveys and 235 non-response surveys) for a total burden of 200 hours.

- On-site Survey: Of the 1,470 individuals we intercept across all three sampling locations, we expect 80% (n=1,176) to agree to participate in the survey. The survey will take 9 minutes to complete, plus an additional 1 minute for the initial contact, resulting in a total burden of 196 hours.
- Non-response Survey: Of the 294 individuals who refuse to complete the on-site survey, we expect 80% (n=235) to complete the non-response survey. The non-response survey will take one minute to complete, including the initial contact and answering the 3 non-response questions, resulting in a total burden of 4 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.

Table 4. Burden Estimates

	Completed Responses	Completion Time (minutes)	Burden Hours
On-site Survey	1,176	10	196
On-site, Non-Response Survey	235	1	4
Total burden requested under this ICR:	1,411		200

REPORTING PLAN:

The results of the survey will be incorporated into a report that will be shared with NPS staff at CARE, the Intermountain Regional Office, and Social Science Program. Question results will be presented in tables or figures. Descriptive statistics, including response frequencies and measures of central tendency (mean, median, and standard deviation), along with further in-depth analysis (including chi-square and ANOVAs) is anticipated. This dataset will connect to previous VUM reports developed by the park. Any reports will be archived with the NPS Social Science Program for inclusion in the Social Science Studies Collection as required by the NPS Programmatic Approval Process.

NOTICES

⁷ Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method*. John Wiley & Sons.

⁸ Vaske, J. J. (2019). *Survey research and analysis*. Sagamore-Venture. 1807 North Federal Drive, Urbana, IL 61801.

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.
