



## 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: 11/18/2016

Project Title: 2017 Visitor User and Experience in Denali's Backcountry

### Abstract (not to exceed 150 words)

Since 2012, the Backcountry patrols have provided data regarding Ranger-observed human impact; however, these data cannot be used to determine if the current social indicators are being exceeded. This information collection will serve as an assessment of visitor use and experience in Denali National Park and Preserve (DENA) Backcountry. Since 2012, the Denali National Park (DENA) Backcountry Patrols have provided data regarding human impact; however Because of this, the Denali's Backcountry Management Plan (BCMP) mandates that we conduct a large scale visitor experience survey every 5 years in order to assess the current social and related resource indicators. Two on-site surveys will be used to collect the information for this collection. Overnight and daytime backcountry users will be surveyed in the park during the 2017 summer season.

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**Project Information**

Where will the collection take place? (Name of NPS Site) DENA

Sampling Period Start Date: June 1, 2017 End Date: Sept 17, 2017

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

- Mail-Back Questionnaire
- Face-to-Face Interview
- Focus Groups
- On-Site Questionnaire
- Telephone Survey
- Other (list)

Will an electronic device be used to collect information?  
X No     Yes - type of device

**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.

This information collection will serve as an assessment of visitor use and experience in Denali National Park and Preserve (DENA) Backcountry. Since 2012, the Denali National Park (DENA) Backcountry Patrols have provided data regarding human impact; however these data cannot be used to determine if the current social indicators are being exceeded. Because of this, the Denali's Backcountry Management Plan (BCMP) mandates that we conduct a large scale visitor experience survey every 5 years in order to assess the current social and related resource indicators.

Two on-site surveys will be used to collect the information for this study. Overnight and daytime backcountry users will be surveyed in the park during the 2017 summer season. The Visitor Experience and Resource Protection (VERP) framework will be used to identify measurable physical, ecological or social variables that will be used to reflect the overall condition of specified area in the park. The relevant indicators and standard levels are identified below:

Indicator	Standard
<ul style="list-style-type: none"> <li>• Encounters with:               <ul style="list-style-type: none"> <li>• motorized sound</li> <li>• with modern equipment</li> <li>• other park visitors</li> <li>• Encounters with groups &gt; 6</li> <li>• with landscape modifications</li> <li>• NPS rangers or researchers</li> <li>• litter and human waste</li> </ul> </li> </ul>	<p>No more than:</p> <ul style="list-style-type: none"> <li>➢ one per day, audible less than 5% of any hour</li> <li>➢ one per day</li> <li>➢ two per day</li> <li>➢ One or two per day<sup>2</sup></li> <li>➢ No landscape modifications are visible</li> <li>➢ Medium" (routine patrols)</li> <li>➢ Less than 5% reporting</li> </ul>
<p>Ability to:</p> <ul style="list-style-type: none"> <li>• camp out of sight or sound of others</li> </ul>	<ul style="list-style-type: none"> <li>➢ Always</li> </ul>

characteristic proposed for this collection that were not used in the 2010 survey. We intend use the following backcountry indicators to determine if user notice the following violations:

Indicator	Violation
<b>Undeveloped Quality</b>	<ul style="list-style-type: none"> <li>• presence of non-recreational structures</li> <li>• installations and developments</li> <li>• use of motor vehicles</li> <li>• overflights of local aircraft</li> <li>• landscape modifications</li> </ul>
<b>Solitude or Primitive Unconfined Recreation Quality</b>	<ul style="list-style-type: none"> <li>• presence of human waste/litter</li> <li>• persistent sights and sounds of human activity</li> <li>• high encounter rates</li> <li>• trail disturbance</li> <li>• natural soundscape disturbance</li> </ul>

The results of this collection will be used to determine if indicators have varied substantially from the previous efforts. This is an important management need because if some units are found to be out of standard they may be faced decisions to restrict or encourage use of certain backcountry units that may benefit the visitor.

### Survey Methodology

#### (a) Respondent Universe:

The respondent universe for this collection will be all adult (18 years and older), overnight or day backcountry users in the DENA during the sampling period (June 1 -Sept. 17 2017). Overnight backpackers will be considered any person spending one or more nights in the backcountry of Denali. Day Hikers will be sampled on the return bus ride to the entrance of the park. Day hikers are typically identifiable by the lack of camping equipment and gear. A systematic sample of visitors will be Intercepted at the locations listed in the table below:

Recreation Users to be Surveyed	Intercept Location
Overnight Backpackers	Backcountry Information Center (BIC)
Day Hikers	Toklat Rest Area/Shuttle bus Eielson Visitor Center/Shuttle bus Wonder Lake Campground Teklanika Campground

#### (b) Sampling Plan/Procedures:

All visitors will be randomly selected to participate during the sampling period as they are encountered at one of the locations listed above. A systematic sampling procedure, based on the park's visitation statistics from the previous year, we will intercept every 3rd visitor to participate in the study. When each visitor group is stopped and asked to participate we will determine acceptance or refusal. If they accept the person with the nearest birthday from the group will be selected, and a questionnaire in a waterproof

container will be given to the person.

One survey interviewer will be on staff for each sample day and associated time block; a maximum of two sites will be sampled per day (given the total of 2 NPS staff for this project). The total sample days (44) were selected via a random number generation algorithm with the upper bound of 91 (3 months). The days were numbered, and the corresponding number generated to the day of the month became the selected sample date. Sample days per site are based on opening and closing dates, termination of bus service, and past visitor use patterns of these sites. The Backcountry Info Center will be sampled all 44 days because it is the only site to intercept overnight backcountry users. The time blocks for this collection are pre-determined to be the best times to capture a steady flow of visitors at each location to achieve 800 total responses.

Location	Time Blocks		Sampling Days Per Site		
<b>Overnight Survey</b>					
Backcountry Info Center	9:00AM - 1:00PM	3:00PM - 6:00PM	14	14	14
<b>Day Hiker Survey</b>					
Teklanika Campground	10:00 AM - 2:00 PM	4:00 PM - 7:00 PM	5	5	2
Toklat Rest Area	10:00 AM - 2:00 PM	3:00 PM - 6:00 PM	10	10	10
Eielson Visitor Center	11:00 AM - 5:00 PM	8:00 AM - 2:00 PM	12	14	14
Wonder Lake Campground	3:00 PM - 9:00 PM*	N/A	5	5	2

\*Due to the travel time required to reach Wonder lake Campground, this site will be sample only in evening, and survey interviewer will camp on site.

**(c) Instrument Administration:**

Overnight backcountry users will be approached at the Backcountry Information Center (BIC). They will be handed a survey inside small waterproof container (which will be theirs to keep); and given instruction that the survey is to be completed over the course their trip and returned to the BIC at the end of their trip.

Day hikers will be approached at the end of their visit on the shuttle buses at the Eielson Visitor Center and Toklat rest stops. The buses will be systematically selected according to specified time blocks. Once the selected individuals agree to participate, they will be given a survey to complete during the ride back to the park entrance. The completed surveys will be returned to the survey administrator en-route, It is important to note, the return bus ride to the entrance is between 4 and 8 hours. Day hikers will also be sampled at two popular campgrounds: Wonder Lake, and Teklanika Campgrounds. Every 3<sup>rd</sup> campsite will be approached during the late afternoon and evening (after the end of their hike) and one person in the group will be asked to participate.

The initial contact with each visitor will be used to briefly explain the study and determine willingness to participate. This will take approximately one minute. Visitors selected to participate in the survey will be read the following script:

Day hiker Survey

"Hello, my name is \_\_\_\_\_. I am conducting a survey for the National Park Service.

We are trying to understand more about backcountry hiker experiences in Denali's backcountry. Your participation is voluntary and all responses will be kept anonymous. Would you be willing to complete a 10-minute survey and give it back to the interviewer before you leave the bus?

OR

**Overnight Survey**

Hello, my name is \_\_\_\_\_. I am conducting a survey for the National Park Service. We are trying to understand more about overnight experiences in Denali's backcountry. Would you be willing to complete a survey during your trip? It will take about 15 minutes to complete. Once you are done please return to the box that will be next to where you will return your bear resistant food container at the end of your trip?"

FOR BOTH SURVEY GROUPS

- ➔ If YES - then ask, "who in your group has the closest birthday to today's date?"  
Are you 18 years or older?"
- ➔ If YES "Thank you for agreeing to participate in this study we hope that you will return the questionnaire to [person/location] when you are done. .Before you leave may I ask you a few quick questions?  
  
Ask the non-response bias questions (listed below) and record responses in spaces provided on the tracking sheet.
- ➔ If NO- (soft refusal) - ask them if they would be willing to answer the non-response bias questions (listed below) and then thank them for their time. Record responses in spaces provided on the tracking sheet.
- ➔ If NO- (Hard refusal) - Thank you for your time and have a safe trip.

**(d) Expected Response Rate/Confidence Levels:**

We used the most recent NPS Visitor Use Statistics for this site to estimate the sample size of 8,000 for the overnight backpacker and day hiker backcountry user population, with a 50/50 conservative population split and ±5 % error (95% confidence level).

Denali Backcountry Sample Plan 2017						
Location	June		July		August	
	Initial Contact	Respondents	Initial Contact	Respondents	Initial Contact	Respondents
<b>Overnight Survey</b>						
Backcountry Info Center	170	136	170	136	160	128
<b>Day Hiker Survey</b>						
Teklanika Campground	50	40	50	40	30	24
Toklat Rest Area	30	24	50	40	50	40
Eielson Visitor Center	30	24	50	40	30	24
Wonder Lake Campground	50	40	50	40	30	24
<b>TOTAL</b>	<b>310</b>	<b>264</b>	<b>350</b>	<b>296</b>	<b>300</b>	<b>240</b>

Based upon the results of the pre-test for both surveys, we anticipate a response rate of at least 80%. For the overnight backcountry pre-test the non-response check revealed group size as distinguishing factor, where groups above 4 were less likely to take a survey. The non-response checks results of the Day Hiker

found low income visitors were underrepresented. Although post-survey responses can be weighted to adjust for this underrepresented group, we determined that a better approach was to add the Teklanika and Wonder Lake campgrounds to the sample areas, where a greater proportion of hikers congregate; and the chances of systematically selecting low income visitors by campsite may be higher.

	Number of Initial Contacts	Expected Response Rate	Expected Number of Responses	Margin of Error +/- %	Confidence Level
Overnight Survey	500	80%	400	.05	95
Day Hiker Survey	500	80%	400	.05	95
<b>TOTAL</b>	1,000		800		

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

During the initial contact, the interviewer will ask each visitor four questions taken from the survey. These questions will be used in a non-response bias analysis.

- 1) *Where are you from (zip code/Country)?*
- 2) *How many people are in your group?*
- 3) *Would you say that this trip to Denali a large portion of your annual budget? Yes - No*
- 4) *What is your age?*

Responses will be recorded on a log for every survey contact. Results of the non-response bias check will be used to develop sample weights for regression analysis, and described in the study reports. Any implications for park planning and management will also be discussed.

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

A pre-test of the survey instrument was conducted on site with less than 9 visitors. The results and revealed:

- the difficulty only using the shuttle buses to capture capturing a sufficient number of day users
- an open-ended where the respondents could write in their gender seemed to be most effective
- that the adjusted NEP metric (adapted language, fewer items asked) would be be useful tool to engage participation
- that low income visitors were underrepresented
- that groups above 4 were less likely to take a survey
- the respondent burden for the backpacker survey was between 12 and 15 minutes and the day hiker survey took about 10 minutes to complete

## Burden Estimates

Overall, we anticipate that a total of 1,000 individuals will be approached during the sample period. Among the 1,000 individuals we expect that 800 (80%) will agree to participate and complete the survey while on site or during their backcountry trip.

We expect the initial on-site contact time will be at least 2 minutes per person (1,000 X 2 minutes = 34 hours). During the initial contact each person will be asked to answer the four non-response questions listed above in section (e).

For those who agree to participate we expect to an 80% rate of return (n=800).

- Overnight Survey: We expect that there will be at least 400 backers that will require an additional 14 minutes to complete the survey and return it at the end of their trip (400 x14 minutes = 93 hours).
- Day Hiker Survey: We expect that that there will be 400 day hikers. For these individuals we anticipated that an additional 10 minutes will be needed to complete the survey (400x10 minutes = 67 hours).
- Non-respondents: It is anticipated that a total of 200 visitors (20%) will refuse to participate and for those individuals, it will take no more than two minutes to complete the non-respondent questions. We anticipate that 25% of the non-respondents will agree to answer the non-response question (50X2 minutes =2 hours)

The total burden for this collection is estimated to be 191hours. This time includes the initial contact, non-response survey and both on-site surveys.

Overnight Survey		Estimation of Time (minutes)		Estimation of Burden (hours)	
Estimated Total Number					
Initial Contacts	500	Initial Contact	2	Initial Contact	16
On-site Refusal/ nonresponse	100	On-site Refusal/ nonresponse	2	On-site Refusal/ nonresponse	3
Total Responses	400	To complete response	14	To complete response	93
				<b>Total</b>	<b>111</b>

### Day Hiker Survey

Estimated Total Number		Estimation of Time (minutes)		Estimation of Burden (hours)	
Initial Contacts	500	Initial Contact	2	Initial Contact	10
On-site Refusal/ nonresponse	100	On-site Refusal/ nonresponse	2	On-site Refusal/ nonresponse	3
Total Responses	400	To complete response	14	To complete response	67
				<b>Total</b>	<b>80</b>

## Reporting Plan

Response frequencies will be tabulated and measures of central tendency computed (e.g., mean, median, mode, as appropriate). The survey results will be compiled and entered into master Backcountry Visitor Database.

Reports with visitor frequencies and descriptive statistics regarding visitor experience in DENA backcountry will be given to specific to DENA divisions (who have indicated an interest in the results). The draft report will be reviewed by colleagues and chief of Resources and the final Natural Resource Technical Series (NRTS) report will be presented to the Denali Management Team and posted as a Natural Resource Report in the NPS Data Store (<https://irma.nps.gov/DataStore/Reference/Profile/>). Hard copies will be available on request. The report will be archived with the NPS Social Science Program for inclusion in the Social Science Studies Collection as required by the NSP Programmatic Approval Process.