



## PROJECT INFORMATION:

Where will the collection take place? **Grand Teton National Park Moose-Wilson Corridor**

Sampling Period Start Date: June 1, 2017    Sampling Period End Date: August 31, 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?  No  Yes - Type of Device: iPad tablet computer

## SURVEY JUSTIFICATION:

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*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.*

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The Moose-Wilson (MWC) corridor of Grand Teton National Park (GRTE) includes approximately 10,000 acres of land surrounding a 7.7-mile section of road and is home to a plethora of flora and fauna. In recent years, the MWC has undergone several changes. In 2001, 1,106 acres of private land within the corridor was donated to GRTE, and is currently under a conservation easement. Also, there has been increased bike traffic on the narrow two-lane road through the MWC, though there is neither a bike path nor a shoulder. This increase coincides with the relatively recent construction and promotion of the "Grand Loop Tour" bicycle path, which includes pathways within and outside the park. Additionally, since 2007 grizzly bears have moved into the corridor, adding a new element to human wildlife interactions.

During the summer of 2014, a study was conducted to assess the social and ecological conditions of the MWC. The results this study concluded that visitor experiences were mostly impacted by traffic and congestion throughout the MWC. The results of this study were used in a comprehensive management plan and environmental impact statement for GRTE that put forth the recommendation of a visitor capacity of no more than 200 vehicles in the corridor at one time. To ensure that only 200 vehicles are in the corridor at one time, a queuing strategy is required. During the 2017 summer season (June-August) the park will initiate an interim traffic control program to determine the functionality of a queuing system and its effects on visitor experiences.

The purpose of this collection is to determine the effects that the proposed queuing may have on visitor experiences in the Moose-Wilson corridor. Managers need to understand how visitors may react to the new system and what type of information is needed identify solutions to solve the problems crowding and traffic congestion throughout the MWC. Strategies will be needed to provide visitors information about traffic along the Moose-Wilson road based upon their preferred method of receiving information. The information collected from this study will help Grand Teton park managers as they move from interim strategies to long-term solutions.

**SURVEY METHODOLOGY:**

**(A) Respondent Universe:**

The respondent universe for this collection will be all adults (18 years and older) visiting Grand Teton National Park’s Moose Wilson Corridor from June 1 to August 31, 2017.

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

This is an on-site/roadside survey that will take place near the Granite and Moose entrances to Moose-Wilson Road from June 1 to August 31, 2017. Visitors will be systematically stopped while in their vehicles and asked to complete a questionnaire

Sampling days will be evenly stratified by day of the week, time, and location, proportionate to visitation estimates provided by the park. On each sampling day, two trained research assistant will be stationed at one of the locations between 7 a.m. and 7 p.m. Research assistants will recruit study participants by contacting a random sample of visitors as they are entering the study area

**Table 1: Example On-site Sampling Schedule**

Location	Sampling Days Per Site			
	June	July	August	Total
Granite entrance	4	4	4	12
Moose entrance	4	4	4	12
<b>Total</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>24</b>

The Granite and Moose entrance intercept locations were chosen because they provide adequate space for pulling over vehicles and collecting data safely. At these sampling locations, one surveyor will serve as a flagger to control traffic, and one will serve as a data collector. At this site, visitor groups will be intercepted approximately every 10 minutes (this sampling interval may be adjusted if traffic volume fluctuates). After pulling safely off the road segment, groups will be greeted by the surveyor, and introduced to the purpose of the study. The group will be asked for a person in the car who is at least 18 years old and has the closest birthday to the present day to volunteer to participate.

**Table 2: Estimated Number of Visitor Contacts during Sampling Period**

Location	Estimated Number of Visitor Contacts			
	June	July	August	TOTAL
Granite entrance	125	125	125	375
Moose entrance	125	125	125	375
<b>TOTAL</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>0</b>

Visitors who agree to participate will be asked complete the survey; and individuals or groups who are unwilling or unable to participate in the study will be thanked for their consideration and asked a non-response bias question that

will be used to check for non-response bias. In addition to the non-response bias question, other visitor characteristics will be recorded in the study log (e.g., number of adults, number of children, gender, and potential language barrier).

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**(C) Instrument Administration:**

Surveys will be administered by trained research assistants working under the supervision of the PI and GRTE staff. The survey questionnaire will be administered by handing the participant a laminated copy of the questions. The research assistants will use tablet computers to capture the verbal responses from participants. This method is used as an attempt to facilitate skip patterns and eliminate data entry errors. All participating respondents will be read the instructions and administered the survey. This process will continue throughout the sampling period.

The research assistant will use the following script when working with potential respondents:

*Hello, I am conducting a study for Grand Teton National Park to better understand the types of experiences visitors may have will traveling/driving within the Moose-Wilson Corridor of the park. Your participation is voluntary and your responses will be anonymous. In total, this study will take you about 5 minutes to complete. Would you be willing to participate?"*

→If **NO**: *"Do you mind if I ask, what is the primary activity you are planning to do during your visit? --- Thank you for your time and consideration. I hope you enjoy your visit."*

→If **YES**: *"Thank you for your willingness to help us by participate today. May I ask, who in your group (who is at least 18 years old) has the next birthday? Would you be willing to participate in the study?"*

The surveyor will provide the instructions for completing the survey and will be in the process.

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

A total of 750 visitors (375 at both the Moose entrance and Granite entrance) will be contacted during the sampling period. It is estimated that at least 70% (n=526) will be willing to participate in the surveys. These estimates are based on previous research in in Grand Teton National Park conducted in the summers of 2014 and 2015 on the Moose-Wilson Corridor (Newman et al., 2015 & Newman, et al., 2016). The research in 2014 and 2015 in Grand Teton employed similar methodology (e.g. an exit survey of every nth visitor group in vehicles). In 2014, the response rate was 76% and in 2015 the response rate was 73%. Since some visitors in the sample will have been asked to queue prior to their entrance to the Moose-Wilson corridor, it is expected that there will be a slight decrease in response rates. Vaske (2008) concluded that the estimated sample size, given this unique and under-studied user-group, typically allows generalization to a population with a 95% confidence interval that the survey findings will be accurate to within ±5 percentage points. Based upon our experiences, of all of the people refusing to take the full survey at least 70% (n=158) will agree to answer the non-response check questions and 30% (n=68) will give a "hard refusal" and walk away.

Location	Initial Contacts	Acceptance 70%	Number of all refusals	Non-response survey	Hard Refusals
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			30%	70%	XX%
Granite entrance	375	263	113	79	34
Moose entrance	375	263	113	79	34
TOTAL	750	526	126	0	0

% of all refusals

**(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:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• time and day of contact,</li> <li>• gender,</li> <li>• activity,</li> </ul> | <ul style="list-style-type: none"> <li>• group size</li> <li>• number of adults and children in group,</li> <li>• potential language barrier</li> </ul> |
|--|---|

Potential participants who do not agree to participate will also be asked the follow questions that will be used as the non-response bias check for this collection:

- Please select one of the following that best describes your primary destination today.
  - The Moose-Wilson Corridor was my primary destination
  - The Moose-Wilson corridor is one of several destinations
  - I am passing through the Moose-Wilson corridor on my way to my primary destination
  - I did not plan to visit the Moose-Wilson corridor
  
- How long did you and your personal groups have to wait in traffic to enter the Moose-Wilson corridor today?  
(please list minutes)
  - Less than 5 minutes
  - Between 5 and 10 minutes
  - Between 10 and 30 minutes
  - Between 30 minutes and 45 minutes
  - More than 45 minutes

This process will continue throughout the sampling period at each of the study locations. This information will be used to determine any non-response bias. Any non-response bias will be reported in final reports.

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

The questions included in the survey instrument were designed, reviewed and pretested by the Grand Teton National Park staff (GRTE Management Team). Based on peer-reviews, survey questions were reduced and truncated, to only include approved pool of known questions/topics, as an attempt to reduce burden time. Pre-testing for clarity and estimated burden time was conducted with park staff.

**BURDEN ESTIMATES:**

We plan to approach 750 potential participants and from this we expect that 70% (n=525) will agree to complete the on-site survey. This will take an additional 5 minutes to complete (525 x 5 minutes = 44 hours).. We expect that the initial contact time will take one minute per person (750 x 1 minute = 13 hours). We expect that 30% (n = 225) of visitors will refuse to participate in the study. For those individuals, we will record their reason for refusal and ask them to answer a non-response check question that will be recorded on the study log (additional observational data will be collected as well). Based upon our estimated response rate of all of the people that refuse to take the survey 70% (n=158) will agree to answer the non-response check questions and 30% (n=68) will give a “hard refusal” and walk away. The time to complete the non-response questions is estimated to take about one minute to complete (158 x 1 minute = 3 hours).

The total respondent burden for this collection is estimated to be 60 hours.

Estimated Total Number	
Initial Contacts	750
Nonresponse Survey	158
Completed Surveys	525

Estimation of Time (minutes)	
Initial Contact	1
To complete	1
Nonresponse Survey	1
To Complete Survey	5

Estimation of Buren (hours)	
Initial Contact	13
To complete	3
Nonresponse Survey	3
To Complete Survey	44
<b>Total</b>	<b>60</b>

**REPORTING PLAN:**

A final technical report will be delivered to the park managers and staff at Grand Teton National Park. The report will contain a description of the study purpose and key findings. Frequency distributions and descriptive statistics will be included for all survey variables. A final copy of the report will also be transmitted to the NPS Social Science Division for archiving in the Social Science Studies Collection.

## 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.