

Lighting and Night Skies in Colter Bay

Visitor Experience Survey

The focus of this study is to understand visitor experiences and perspectives regarding the night skies and lighting in the Colter Bay area of Grand Teton National Park. These data will help inform park managers about the current visitor perceptions of the lighting and ability to view the night sky.

Your participation in the study is voluntary, and your answers will remain anonymous. Our results will be summarized so that the answers you provide cannot be associated with you or anyone in your group or household. The survey will take approximately 8 minutes to complete.

PAPERWORK REDUCTION and PRIVACY ACT STATEMENT: The Paperwork Reduction Act requires us to tell you why we are collecting this information, how we will use it, and whether or not you have to respond. We are authorized by the National Park Service Protection Interpretation and research in System (54 USC §100702) to collect this information. The routine uses of this information will be for the benefit of NPS Managers and Planning staff managers to understand the effects of lighting on visitor experiences at night in the Colter Bay area of Grand Teton National Park. The data collected will be summarized to evaluate visitor's experiences of Colter Bay at night in Grand Teton National Park. Your responses to this collection are completely voluntary and will remain anonymous. You can end the process at any time and will not be penalized in any way for choosing to do so. All contact information collected for the purpose of the follow-up survey will be destroyed at the end of the collection period and no personal identifiable records will be maintained or stored for any purposes. Data collected will only be reported in aggregates and no individually identifiable responses will be reported. A Federal agency may not conduct or sponsor, and you are not required to respond to, a collection of information unless it displays a currently valid OMB Control Number (1024-0224). We estimate that it will take about 8 minutes to complete and return this on-site interview. You may send comments concerning the burden estimates or any aspect of this information collection to: Jennifer N. Newton, Science and Resource Management, Grand Teton National Park, Jennifer_Newton@nps.gov (email); or Phadrea Ponds NPS Information Collection Clearance Officer at pponds@nps.gov (email)

Visitor Experience with Lighting and Night Skies in Colter Bay

1) Are you a first-time visitor to Grand Teton National Park?

No Yes

2) In which year did you make your first visit to Grand Teton National Park?

3) Have you visited Colter Bay within Grand Teton National Park before today?

No Yes

4) Have you visited Colter Bay within Grand Teton National Park **at night** before today?

No Yes

5) Have you previously camped at Colter Bay Campground?

No Yes

6) In which year did you first camp at Colter Bay Campground?

7) On this trip, did you and your personal group camp overnight in Colter Bay?

No Yes

8) To-date, how many nights, including tonight, have you camped at Colter Bay Campground during this trip?

9) Please check all of the following things you've done in Colter Bay **this evening**. (Check all that apply)

- Attended a ranger program
- Walked/hiked somewhere in the park other than a campground
- Stargazed/viewed the night sky
- Other: _____

10) Did you see any of the following on your current trip to **Colter Bay at night**? If so, describe your experience.

Bats - Describe experience _____

If you saw bats, approximately how many bats did you see?

1 - 3 bats 4 to 6 bats 7 to 10 bats more than 10 bats

Mule Deer - Describe experience _____

Pine Martens - Describe experience _____

Bears - Describe experience _____

Elk - Describe experience _____

Fox - Describe experience _____

Owls - Describe experience _____

Ducks - Describe experience _____

- Trees – Describe experience _____
- Shrubs – Describe experience _____
- Grasses – Describe experience _____
- Wildflowers – Describe experience _____

11) Please indicate the degree to which you agree or disagree with the following statements. (Select one for each statement.)

	Completely Disagree	Disagree	Slightly disagree	Neither agree or disagree	Slightly agree	Agree	Completely Agree
Viewing the night sky (“stargazing”) is important to me	1	2	3	4	5	6	7
I expected to see a “starry night” in this park.	1	2	3	4	5	6	7
Observing the night sky is an important part of my experience in Grand Teton National Park	1	2	3	4	5	6	7
The night sky in this park is pristine (i.e. free of light pollution)	1	2	3	4	5	6	7
This park has a good reputation as a place to view the night sky	1	2	3	4	5	6	7
Protection of natural nighttime conditions (e.g. darkness) is important in preserving this park for future generations.	1	2	3	4	5	6	7
Preserving a natural night environment is as important as protecting other resources in this park	1	2	3	4	5	6	7
Grand Teton National Park should modify its lighting at Colter Bay (e.g. use less lighting, direct lighting downward) to allow visitors to see the night sky.	1	2	3	4	5	6	7

12) For the **current outdoor lighting in Colter Bay**, please indicate how true the following statements are of your experience (Select one number for each item.)

<i>The outdoor lighting in Colter Bay...</i>	Not at all true	Slightly True	Moderately True	Very True	Completely True
... makes nighttime recreation activities more pleasurable.	1	2	3	4	5
...makes it easy for my eyes to transition from light to dark places.	1	2	3	4	5
... makes it more difficult for me to do other nighttime activities in the park.	1	2	3	4	5
...makes it less safe.	1	2	3	4	5

...makes it easier to navigate while doing nighttime activities.	1	2	3	4	5
... promotes more natural wildlife behaviors.	1	2	3	4	5
... provides benefits for wildlife and insects.	1	2	3	4	5
... reduces human impacts on wildlife.	1	2	3	4	5
...makes it seem inappropriately bright.	1	2	3	4	5
...makes it seem inappropriately dark.	1	2	3	4	5
... makes it difficult to find areas and points of interest (e.g. entrances to restaurants, restrooms, stores...)	1	2	3	4	5
...affects the Greater Yellowstone Ecosystem	1	2	3	4	5
...makes it easy for me to see in unlit areas (e.g. in the shadows)	1	2	3	4	5

13) Please indicate the degree to which you oppose or support the following management actions designed to protect the quality of stargazing/viewing the night sky at this park.

	Completely Oppose	Oppose	Neither Oppose nor Support	Support	Completely Support
Setting lights to the minimum necessary brightness	1	2	3	4	5
Reducing the number of park lights	1	2	3	4	5
Restricting the number of lights visitors can use at night	1	2	3	4	5
Creating shield on lights that direct light only to intended areas	1	2	3	4	5
Adjusting hues of lights to be wildlife friendly	1	2	3	4	5
Adjusting hues of lights to preserve human's night vision	1	2	3	4	5

14) Viewing the night sky can be affected by artificial light. We would like to know your opinion about how the night sky should look for stargazing or viewing. Please take a moment to look at the conditions of the night sky and answer the following question.

How unacceptable or acceptable do you think the current lighting conditions are in Colter Bay tonight for stargazing or viewing the night sky?

Completely unacceptable	Unacceptable	Slightly unacceptable	Neutral	Slightly acceptable	Acceptable	Completely acceptable
-3	-2	-1	0	1	2	3

Please indicate the degree to which you disagree or agree with the following statement about your experience when viewing the night sky at **Colter Bay tonight** (Select one number for each item.)

	Completely disagree	Disagree	Slightly disagree	Neither	Slightly agree	Agree	Completely agree
I sensed things momentarily slow down	1	2	3	4	5	6	7
I noticed time slowing	1	2	3	4	5	6	7
I felt my sense of time change	1	2	3	4	5	6	7
I felt my sense of self become somehow smaller	1	2	3	4	5	6	7
I felt small compared to everything else	1	2	3	4	5	6	7
I felt my sense of self shrink	1	2	3	4	5	6	7
I had the sense of being connected to everything else	1	2	3	4	5	6	7
I felt closely connected to humanity	1	2	3	4	5	6	7
I had a sense of complete connectedness	1	2	3	4	5	6	7
I felt that I was in the presence of something grand	1	2	3	4	5	6	7
I experienced something greater than myself	1	2	3	4	5	6	7
I perceived vastness	1	2	3	4	5	6	7
I felt in the presence of greatness	1	2	3	4	5	6	7
I felt challenged to mentally process what I was experiencing	1	2	3	4	5	6	7
I found it hard to comprehend the experience in full	1	2	3	4	5	6	7
I struggled to take in all that I was experiencing at once	1	2	3	4	5	6	7
I felt my eyes widen	1	2	3	4	5	6	7
I felt myself smile	1	2	3	4	5	6	7
It gave me the chills	1	2	3	4	5	6	7

15) What things do you like most about the nighttime environment in Colter Bay?

16) What things do you like least about the nighttime environment in Colter Bay?

17) Is there anything you would like to see changed in the way Grand Teton manages its activities, visitor activities, stargazing/viewing the night sky, lighting, or park resources at night?

18) In what year were you born? _____

19) What is your gender? Please select one.

20) Are you a permanent resident or citizen of the United States? (Please respond "yes" or "no")

NO - What is your country of origin? _____

YES - What is your primary zip code

Zip code _____

21) How many people were in your personal group today, including you? (Please respond below)

____ Number of people

22) Which one language do you and members of your personal group primarily use to communicate with each other? (Select one)

- English
- Other (please specify) _____.

23) What is the highest level of formal education you have completed? (Select one)

- Some high school
- High school graduate or GED
- Some college, business or trade school
- College, business or trade school graduate
- Some graduate school
- Master's degree
- Doctoral or professional degree

23) Is there anything else you would like to tell us about your visit to Colter Bay?

Thank you for your participation!