

Visitors Perceptions of Climate Change Study

Fish and Wildlife Service On-Site Survey



Paperwork Reduction Act and Privacy Act Statements:

The National Park Service is authorized by 54 U.S.C. 100702 and the U.S. Fish and Wildlife Service is authorized by the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd–668ee) to collect this information. This collection involves a visitor survey to understand visitor perceptions and concerns about climate change to guide communication and engagement efforts. 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. 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. Your response is not required to obtain or retain a benefit. OMB has approved this collection of information and assigned control number XXXX-XXXX. The expiration date is XXXXXXXX

Estimated Burden Statements:

Public reporting for this collection of information is estimated to be about 7 minutes per survey. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Information Collection Clearance Officer, National Park Service, 12201 Sunrise Valley Dr. (MS-242), Reston, VA 20192 or Service Information Clearance Officer, Fish and Wildlife Service, U.S. Department of the Interior, 5275 Leesburg Pike, MS: PRB (JAO/3W), Falls Church, VA 22041-3803, or via email at Info_Coll@fws.gov.

Note to reviewers: Justifications for questions/question sets appear prior to the questions in shaded text boxes throughout the study. These will be removed upon completion of the review.

Question 1: Park/Refuge Unit Visitation: This information is necessary to determine whether visitor perceptions of climate change, park/refuge information about climate change, and/or park/refuge actions to address climate change vary based on whether an individual is a repeat visitor to a particular unit. This information will be useful for developing communication products appropriate for different visitor audiences (i.e., first time visitors vs. repeat visitors).

1. Is this your first visit to this refuge?

☐ Yes

☐ No → Including this visit, approximately how many times have you visited this refuge over the past 12 months? _____

Question 2: This information will be used to indicate overall level of concern about climate change in relation to other issues and to identify linkages that interpreters can make between climate change and other issues of concern to visitors. The respondent will reorder the responses by using a drag and drop function in the software.

2. Please rank your level of concern regarding the following possible impacts to this refuge, with 1 being the most concerning and 7 being the least concerning. (Please drag the impacts to rank them.)

Air pollution
Water pollution
Climate change
Light pollution
Noise pollution
Invasive species
Overuse

Question 3-6: This series of questions is at the heart of understanding how to better communicate with visitors about climate change through interpretation and engagement. Combined with the audience segmentation section (questions 10-13), this section will be used to identify the most effective methods and messages for delivering the climate change information that visitors want.

3. How much do you agree or disagree with the following statements? (Select one number for each item.)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The effects of climate change can already be seen at this refuge.	5	4	3	2	1
I would like to learn more about climate change topics in this refuge.	5	4	3	2	1
Relative to other topics, sharing climate change information should be a high priority at this refuge.	5	4	3	2	1

4. From what sources have you received information about climate change topics at this refuge? (Check all that apply.)

I have not received information on climate change at this refuge. (go to Q5)	<input type="checkbox"/>
Exhibits (indoor, roadside, trailside)	<input type="checkbox"/>
Ranger and staff-guided walks/talks/tours	<input type="checkbox"/>
Informal conversations with rangers and refuge staff	<input type="checkbox"/>
In-refuge videos, films, movies	<input type="checkbox"/>
Printed materials (brochures, books, maps, etc.)	<input type="checkbox"/>
Audio tour or cell phone tour	<input type="checkbox"/>
Refuge website	<input type="checkbox"/>
Social media (Facebook, Twitter, Instagram, other)	<input type="checkbox"/>
Other _____	<input type="checkbox"/>

5. In the future, how interested are you in receiving information about climate change topics at this refuge through the following sources? (Select one number for each item)

	Very Interested	Interested	Neutral	Not very Interested	Not at all Interested
Exhibits (indoor, roadside, trailside)	5	4	3	2	1
Ranger and staff-guided walks/talks/tours	5	4	3	2	1
Informal conversations with rangers and refuge staff	5	4	3	2	1
In-refuge videos, films, movies	5	4	3	2	1
Printed materials (brochures, books, maps, etc.)	5	4	3	2	1
Audio tour or cell phone tour	5	4	3	2	1
Refuge website	5	4	3	2	1
Social media (Facebook, Twitter, Instagram, other)	5	4	3	2	1
Online videos, films, movies, podcasts	5	4	3	2	1

6. Please indicate your level of interest in information about how climate change is affecting... (Select one)

number for each item.)

	Very Interested	Interested	Neutral	Not very Interested	Not at all Interested
... WILDLIFE in this refuge	5	4	3	2	1
... PLANTS AND NATURAL FEATURES (forest, lakes, rivers, etc.) in this refuge	5	4	3	2	1
... CULTURAL AND HISTORICAL FEATURES (indigenous sites, historical buildings, archaeology, etc.) in this refuge	5	4	3	2	1
... PEOPLE (visitor safety, staff safety, human health, visitor experiences, etc.) in this refuge	5	4	3	2	1
... FACILITIES (refuge buildings, roads, etc.) in this refuge	5	4	3	2	1
... NEIGHBORING COMMUNITIES (indigenous people, local communities)	5	4	3	2	1

Please indicate your level of interest in information about...

... SCIENTIFIC RESEARCH on climate change in this refuge	5	4	3	2	1
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Questions 7-8: This information will help managers and interpreters understand what types of actions visitors are noticing and how supportive they are of different types of actions to lessen impacts. This information will be used to

inform the development of interpretive materials about climate change mitigation and adaptation actions at parks/refuges.

7. How much do you agree or disagree with the following possible actions to adapt to climate change in refuges? (Select one number for each item.)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Wrap iconic trees in fire resistant materials as wildfire approaches.	5	4	3	2	1
Build seawalls around staff housing to protect against sea level rise.	5	4	3	2	1
Move historic lighthouses inland to protect against sea level rise.	5	4	3	2	1
Allow grasses and bushes to replace forests after wildfires.	5	4	3	2	1
Abandon maintenance of roads and trails that are at risk from repeated flooding.	5	4	3	2	1
Document—but don't remove—archaeological artifacts from sites that are at imminent risk from flooding.	5	4	3	2	1
Relocate plants and animals to new areas to protect them from hotter conditions.	5	4	3	2	1
Invest in structures for visitor use that can be moved if a hurricane or other dangerous storm is approaching.	5	4	3	2	1
Remove, and store in a museum, archeological artifacts from sites that are at imminent risk from flooding.	5	4	3	2	1

8. Have you noticed any efforts to reduce greenhouse gas emissions (renewable energy, hybrid or electric vehicles, mass transit, LEED-certified buildings, etc.) at this refuge?

- ☐ Yes
☐ No

Questions 9a-9b: Park/refuge staff have anecdotal information suggesting that climate change is already impacting visitation patterns and visitor behavior, but they currently lack empirical data to inform communication aimed at visitors who are changing when/where they visit due to climate change and extreme weather. This information will inform

communication and visitor use management decisions related to extreme weather and climate-threatened resources (e.g., glaciers, Joshua Trees, etc.)

9a. Please indicate whether you have ever done any of the following in ANY refuge.

	Yes	No
Visited a refuge to see iconic features or species that may disappear because of climate change (such as glaciers, Joshua trees, or puffins)	<input type="checkbox"/>	<input type="checkbox"/>
Avoided places that have been impacted by climate change effects (like places with lots of dead trees from fires or pests like pine beetles)	<input type="checkbox"/>	<input type="checkbox"/>
Visited a refuge to experience extreme weather conditions (like extreme heat in Death Valley)	<input type="checkbox"/>	<input type="checkbox"/>

9b. Because of extreme weather conditions (like wildfire/smoke, extreme heat, flooding, hurricanes, etc.) I have...

	Yes	No
Cancelled a trip to a refuge	<input type="checkbox"/>	<input type="checkbox"/>
Visited a refuge less often	<input type="checkbox"/>	<input type="checkbox"/>
Changed the timing of a visit (to a different day or season)	<input type="checkbox"/>	<input type="checkbox"/>
Changed what I did while visiting a refuge (like not hiking on a very hot day, or not camping because of flooding)	<input type="checkbox"/>	<input type="checkbox"/>

Questions 10-13: This series of questions comes from a long-running series of national surveys by Yale University and George Mason University collectively known as "Global Warming's Six Americas." This series of questions has been thoroughly tested and vetted for over fifteen years and is considered the leading audience segmentation protocol for the topic of climate change. This audience segmentation will be used in this survey to assess changes in audience composition among visitors to parks/refuges over the past decade. It will also serve as the independent variable for testing different audience perceptions of park/refuge actions to address climate change (questions 7 and 9) and information sources (questions 3-6). Finally, these questions will allow for a check of non-response bias by testing whether respondents significantly differ in their segmentation from non-respondents.

10. How much do you support efforts to reduce greenhouse gas emissions at this refuge? (Please select one.)

- ☐ Strongly support
- ☐ Support
- ☐ Neutral
- ☐ Do not support
- ☐ Strongly do not support

11. How worried are you about climate change? (Please select one.)

- ☐ Very worried
- ☐ Somewhat worried
- ☐ Neutral
- ☐ Not very worried
- ☐ Not at all worried

12. How important is the issue of climate change to you personally? (Please select one.)

- ☐ Extremely important
- ☐ Very important
- ☐ Somewhat important
- ☐ Not too important
- ☐ Not at all important

13. How much do you think climate change will harm the following? (Select one number for each item.)

	A great deal	A moderate amount	Only a little	Not at all	Don't know
Future generations of people	1	2	3	4	5
You personally	1	2	3	4	5
This refuge	1	2	3	4	5

Please help us to better understand our audience by answering the following questions.

Questions 14-19: The questions in this section will be used to obtain basic demographic characteristics, including residency, gender, age, education level, ethnicity, and race. Demographics will be compared with those from other NPS and general population surveys. This information will also be used to inform communication product development to target different audiences and may inform development of multi-lingual products where appropriate.

14. Are you a resident of the United States?

- ☐ Yes → What is your zip code? Zip: _____
- ☐ No
- ☐ Do not wish to answer

15. What is your age? _____

- ☐ 18-24 years old
- ☐ 25-34 years old
- ☐ 35-44 years old
- ☐ 45-54 years old
- ☐ 55-64 years old
- ☐ 65-74 years old
- ☐ 75 years or older
- ☐ Do not wish to answer

16. What is your gender?

- ☐ Male

- ☐ Female
- ☐ Transgender, non-binary, or another gender
- ☐ Prefer not to respond

17. What is the highest level of formal education you have completed? Please select only one response.

- ☐ Less than high school/Some high school
- ☐ High school graduate
- ☐ Vocational/trade school certificate
- ☐ Some college
- ☐ Associates degree
- ☐ Bachelor's degree (BA, AB, BS, etc.)
- ☐ Master's degree (MA, MS, Med, MSW, MBA, etc.)
- ☐ Professional degree (MD, DDS, DVM, LLB, JD, etc.)
- ☐ Doctorate degree (PhD, EdD, etc.)
- ☐ Do not wish to answer

18. What is your race and/or ethnicity?

Select all that apply and enter additional details in the spaces below.

- ☐ American Indian or Alaska Native—*Enter, for example, Navajo Nation, Blackfeet Tribe of the Blackfeet Indian Reservation of Montana, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, Aztec, Maya, etc.*

- ☐ Asian—*Provide details below.*

- | | | |
|-------------------------------------|---------------------------------------|-----------------------------------|
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Asian Indian | <input type="checkbox"/> Filipino |
| <input type="checkbox"/> Vietnamese | <input type="checkbox"/> Korean | <input type="checkbox"/> Japanese |

Enter, for example, Pakistani, Hmong, Afghan, etc.

- ☐ Black or African American—*Provide details below.*

- | | | |
|---|------------------------------------|----------------------------------|
| <input type="checkbox"/> African American | <input type="checkbox"/> Jamaican | <input type="checkbox"/> Haitian |
| <input type="checkbox"/> Nigerian | <input type="checkbox"/> Ethiopian | <input type="checkbox"/> Somali |

Enter, for example, Trinidadian and Tobagonian, Ghanaian, Congolese, etc.

- ☐ Hispanic or Latino—*Provide details below.*

- | | | |
|----------------------------------|---------------------------------------|-------------------------------------|
| <input type="checkbox"/> Mexican | <input type="checkbox"/> Puerto Rican | <input type="checkbox"/> Salvadoran |
| <input type="checkbox"/> Cuban | <input type="checkbox"/> Dominican | <input type="checkbox"/> Guatemalan |

Enter, for example, Colombian, Honduran, Spaniard, etc.

- ☐ Middle Eastern or North African—*Provide details below.*

- | | | |
|-----------------------------------|----------------------------------|-----------------------------------|
| <input type="checkbox"/> Lebanese | <input type="checkbox"/> Iranian | <input type="checkbox"/> Egyptian |
| <input type="checkbox"/> Syrian | <input type="checkbox"/> Iraqi | <input type="checkbox"/> Israeli |

Enter, for example, Moroccan, Yemeni, Kurdish, etc.

- ☐ Native Hawaiian or Pacific Islander—*Provide details below.*

- | | | |
|--|---------------------------------|-----------------------------------|
| <input type="checkbox"/> Native Hawaiian | <input type="checkbox"/> Samoan | <input type="checkbox"/> Chamorro |
|--|---------------------------------|-----------------------------------|

☐ Tongan

☐ Fijian

☐ Marshallese

Enter, for example, Chuukese, Palauan, Tahitian, etc.

☐ White—*Provide details below.*

☐ English

☐ German

☐ Irish

☐ Italian

☐ Polish

☐ Scottish

Enter, for example, French, Swedish, Norwegian, etc.