



## Expedited Approval for NPS- Sponsored Public Surveys

1. Project Title | Yosemite National Park Integrated Transportation and Visitor  
Submission Date: | Experience Survey | November 5, 2009

2. Abstract: The overall purpose of the project is to provide tools that can help reduce traffic congestion, prevent resource impacts, and provide a quality visitor experience in Yosemite National Park. The project will measure visitors' reported travel times along specific road segments in the park and their evaluations of their transportation-related park experiences. Data will be used to identify 2 standards of quality for indicators of the transportation experience: travel time and vehicles-per-viewshed (VPV). In addition, visitors' evaluations of their experiences at 6 popular locations in the park will be measured, along with evaluations of crowding and congestion at these locations. Data will be collected through on-site questionnaires incorporating well-established visual simulation techniques. On-site sampling will occur from June-August 2010.  
(not to exceed 150 words)

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### Project Information

5. Park(s) For Which Research is to be Conducted:

6. Survey Dates:  (mm/dd/yyyy) to  (mm/dd/yyyy)

7. Type of Information Collection Instrument (Check ALL that Apply)

- Mail- Back Questionnaire       On- Site Questionnaire       Face-to-Face Interview       Telephone Survey       Focus Groups

Other (explain)

8. Survey Justification: (Use as much space as needed; if necessary include additional explanation on a separate page.)

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, development, operations, management, education, and interpretive activities.

Literature Review: Yosemite National Park has experienced increases in visitation over the past decade. Greater use of the park negatively affects the quality of visitor experiences through crowding and resource degradation. It is critical to understand visitors' travel-related attitudes and behavior to inform park transportation planning and management within the context of contemporary management frameworks such as Visitor Experience and Resource Protection (VERP) (NPS, 1997; Manning, 2001). These frameworks help define quality by setting management objectives to fulfill park mandates, legislation, and policy. The VERP process involves identifying indicators and standards of quality; monitoring indicator variables; and taking management actions to ensure that quality standards for each indicator are maintained. Indicators of quality are defined as measurable, manageable variables that act as proxies for the quality of park resources and experiences. Standards define the minimum acceptable condition of these indicator variables.

Earlier research (White, 2007; White & Aquino, 2008; White, Youngs, Wodrich, & Borcharding, 2006; Youngs, White, & Wodrich, 2008) identified multiple dimensions of visitor travel in Yosemite National Park (YOSE), including those related to freedom and access, environmental responsibility, and conflicts based on differences in transportation mode (e.g., motorized vs. non-motorized, personal vehicle vs. mass transit). Prior research also suggested potential indicators of the quality of transportation experiences, including travel time for park road segments and number of vehicles seen per visitors' "viewshed" (VPV). The proposed research extends previous work on visitor experiences and transportation systems in the park. Specifically, the transportations surveys will use well-established visual simulation methods to obtain visitors' input on standards of quality for various indicators related to transportation experiences in the park. Two surveys will be conducted: a Transportation Experience Survey and a Visitor Experience Survey.

Transportation Experience Survey: This survey will measure visitors' reported travel times on specific road segments in Yosemite National Park. It also will measure visitors' evaluations of their transportation-related park experience and elicit input on standards of quality for indicators of the transportation experience in Yosemite National Park. This survey employs a single questionnaire.

Visitor Experience Survey: The visitor experience surveys will measure visitors' subjective evaluations of their experience at 6 popular locations in Yosemite: Lower Yosemite Falls trail, Mariposa Grove, Hetch Hetchy, Tuolumne Meadows, Yosemite Valley Swinging Bridge, and Wawona Swinging Bridge. The surveys also will be used to identify crowding-related standards of quality for indicators of the visitor experience at these locations. A single questionnaire, slightly modified to address specific details at each of the 6 locations, will be employed in this study.

The visual simulation methods and scaling used in the Transportation Experience and Visitor Experience surveys are well-established in the field. Several previous studies have used similar methods and questions (Manning, 2007). Examples include visitor surveys in Acadia NP, including studies on the park's loop road (Hallo & Manning, In Press), on the network of historic carriage roads in the park (Jacobi, et al., 1999; Wang and Manning, 1999), at Schoodic Peninsula (Manning, et al., 2005), and at the park's Isle au Haut unit (Manning, 2007).

9. **Survey Methodology:** (Use as much space as needed; if necessary include additional explanation on a separate page.)

This study will employ a cross-sectional survey design with data collected from a stratified sample of current YOSE visitors through on-site interviewing.

(a) Respondent universe:

The respondent universe for the Transportation Experience Survey includes all adult park visitors (ages 18 and older) driving 6 YOSE road segments during the study period (June-August, 2010). For the Visitor Experience Survey, the respondent universe includes all adult park visitors (ages 18 and older) visiting one of the 6 attractions during the June-August study period.

A total of 2,133 visitors will be contacted to participate in the Transportation Experience Survey, with a final completed sample size of 1,600 expected (see section 10 below).

A total of 1,875 visitors will be contacted to participate in the Visitor Experience Survey, with a final completed sample size of 1,500 expected (see section 10 below).

(b) Sampling plan/procedures:

Transportation Experience Survey: The study will employ a stratified sampling design. Stratified random sampling is used when variables of interest are likely to differ between subpopulations, and information is required with a certain degree of precision for different subgroups (Lohr, 1999). Previous research cited above suggests that the variables of interest (travel time and visitors' evaluations of automobiles per viewshed) will differ based on the road segment traveled, time of day, and time of week. To draw a stratified random sample, the park will be divided into multiple strata based on segments of the road system. On each of 8 road segments, sampling will be distributed across the months of July and August and sampling will be stratified into early (8:00 a.m. - 12:00 p.m.) and late (12:00 p.m. - 8:00 p.m.) portions of the day. The following 8 sampling locations were determined in consultation with Yosemite NP staff to provide the most useful input into transportation models and park management strategies:

1. South Entrance to Wawona
2. Chinquapin to Glacier Point (Glacier Point Road)

3. Chinquapin to Bridalveil Falls in Yosemite Valley
4. Yosemite Valley Northside Drive--Sentinel to Camp 4
5. Yosemite Valley Northside Drive--Curry Village to Camp 6
6. Yosemite Valley Southside Drive--Bridalveil Falls to Chapel
7. Crane Flat on Hwy 120 to its intersection with Hwy 140
8. Tioga Road--Lembert Dome to Pothole Dome (Tuolumne Meadows)

Visitor Experience Survey: The sampling period is designed to include the park's peak-use period. The survey will be administered to visitors at the 6 popular locations in the park (Lower Yosemite Falls trail, Mariposa Grove, Hetch Hetchy, Tuolumne Meadows, Yosemite Valley Swinging Bridge, Wawona Swinging Bridge). Sampling will be conducted on 5 randomly selected days at each location throughout the period of the study. The sampling will be spread out over the days of the week and further stratified into two sampling periods (early and late). The early sampling period will take place from 8:00 a.m. to 4:00 p.m., while the late sampling period will take place from 12:00 noon to 8:00 p.m. During each period, a trained surveyor will be stationed at the study location. When the sampling period begins, the surveyor will approach the first visitor group exiting the site and ask them to participate in the survey. If members of the visitor group agree to participate, the eligible person in the group whose birthday is closest to the sampling day will be asked to complete the questionnaire. When the surveyor has completed his/her contact with the group, the surveyor will ask the next visitor group exiting the site to participate in the survey. This process will continue throughout the sampling period. Visitors will complete the on-site questionnaire in the presence of the surveyor, who will answer any questions that arise and who will collect the surveys upon completion. A screening question will be asked to assure that participants will not be surveyed more than once.

(c) Instrument administration:

Transportation Experience Survey: Surveyors will be YOSE Student Conservation Association interns working under the supervision of YOSE staff and project graduate students. The survey will be conducted at roadside pull-outs on each of the sampled road segments. Intercept locations will include scenic overlooks and parking areas that provide adequate space for pulling over vehicles and collecting data safely. Each location will have one surveyor to serve as a flagger to control the traffic and one to serve as a data collector. An Arizona State University graduate research assistant will supervise the surveyors and assist with traffic control and interviewing. A general traffic control plan will be used and modified for effectiveness at each location. "Flagger Ahead" signs will be used to warn approaching drivers of the activity ahead and orange cones will be used to direct automobiles off the roadway. The flagger will use a stop/slow paddle and an orange flag to direct the traffic to stop for the survey or to continue on the roadway while the other surveyor is interviewing respondents.

At high-volume locations, a random start time will be selected at the beginning of the sample period and a visitor group will be intercepted approximately every 20 minutes (although this sampling interval may be adjusted if traffic volume fluctuates unexpectedly). At low-volume locations, all visitor groups will be contacted. Groups will be greeted by the surveyor after they pull off the road segment and introduced to the purpose of the study.

"Excuse me, sir/ma'am. We're conducting a study for Yosemite National Park to better understand visitor use in this area. Participation is voluntary and all responses are anonymous. Would you be willing to take 15 minutes to help?"

If YES: "Thank you. Who in your group (who is at least 18 years old) has the next birthday? Would you be willing to fill out this survey? Have you completed a survey at a different location in the park?"

If YES: “Thank you, but we can only accept one response per group. Thank you for your time.”

If NO: “Thank you. Please feel free to ask me any questions you have about the survey.”

If NO: “I understand. I hope you enjoyed your visit.”

Although the questionnaire will be self-administered, the surveyor will be available to provide assistance when necessary.

Respondents will be asked questions about the transportation road segment (i.e., stratum) most recently traveled prior to arriving at the sampling location. The questionnaire will gather information on travel route, travel mode used, travel time, and perceptions of the travel experience. Evaluations of different numbers of vehicles per viewshed (one indicator of the park transportation experience) will be elicited using 6 visual simulations (photographs) showing low to high traffic levels. Additionally, the questionnaire will gather information on individual characteristics, trip/visit characteristics, activities and uses of park resources, and opinions on park management.

Visitor Experience Survey: Visitors to the 6 study sites will be read the same script as in the Transportation Experience Survey. Although the questionnaire will be self-administered, the surveyor will be available to provide assistance when necessary. Similar to the Transportation Experience Survey, evaluations of different numbers of people per viewshed (one indicator of visitor experience) at each of the 6 sampling locations will be elicited using 6 visual simulations (photographs) showing low to high levels of visitor use. Additionally, the questionnaire will gather information on individual characteristics, trip/visit characteristics, activities and uses of park resources, and opinions on park management.

(d) Expected response rate/confidence levels:

Transportation Experience Survey: A total of 2,136 vehicles will be intercepted across all 8 road segments (267 vehicles /segment). Approximately 60% of these will be contacted on weekends, 40% on weekdays, 50% in the morning, and 50% in the afternoon. Based on previous on-site interviews conducted by the same PI in YOSE in 2007 (White & Aquino, 2008) (OMB 1024-0224 NPS 07-048) and in Canyon de Chelly National Monument in 2006 (White, van Riper, Wodrich, Aquino, & McKinney, 2007) (OMB 1024-0224, NPS 06-018), a final response rate of 75% is anticipated. (The earlier YOSE study achieved a response of 73%, while the Canyon de Chelly study obtained an 83% response rate.) A 75% response to this survey will yield approximately 200 completed interviews per road segment, or 1,600 completions overall. Based on this, the overall sampling error will be approximately +/- 3% at the 95% confidence level, while the sampling error for individual road segments will be approximately +/-7%. This will be sufficient for the park’s transportation planning purposes.

Visitor Experience Survey: For the Visitor Experience Survey, a total of 1,872 groups will be intercepted across all 6 sampling sites (312 groups/site). Approximately 60% of these will be contacted on weekends, 40% on weekdays, 50% in the morning, and 50% in the afternoon. Based on previous on-site visual simulation interviews employing pedestrian intercepts (rather than vehicle intercepts), a final response rate of approximately 80% is anticipated. A series of trail intercept surveys at Acadia National Park in 2006 that used the same type of questionnaire achieved response rates of 84% at Acadia Mountain, 79% at Hunter’s Beach, 84% at Seawall, 86% at Valley Cove, and 77% at Little Hunter’s Beach

(OMB 1024-0224, NPS 06-008). An 80% response to this survey will yield approximately 250 completed interviews per location, or 1,500 completions overall. Based on this, the overall sampling error will be approximately +/-3% at the 95% confidence level, while the sampling error for each of the individual park attractions will be approximately +/-6%. This will be sufficient for the park's visitor experience planning purposes.

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

Transportation Experience Survey: An incentive, in the form of a large color Yosemite National Park postcard, will be provided to encourage participation in the survey and to minimize non-response. This incentive will be given to all groups who are intercepted, regardless of whether they agree to participate or not. To assess potential non-response bias, surveyors will use an on-site contact log to document sampling location, time of day, gender, number of children present, personal group size, and comments regarding reason for refusal. Analyses will be performed to determine if respondents differed significantly from non-respondents, and the implications, if any, for interpreting the results will be discussed.

Visitor Experience Survey: Non-response bias will be examined by comparing selected characteristics of the sample population with characteristics observed and recorded in every group contacted using the same survey log employed in the Transportation Experience Survey. The results of the check for non-response bias will be reported, and implications for data interpretation discussed.

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

Both survey methods and questionnaire instruments have undergone review by Bret Meldrum and Niki Nicholas, Yosemite National Park, Resource Management and Sciences Division; Jim Bacon, Yosemite National Park Planning Division. In addition, the Transportation Experience Survey methods and instrument were reviewed by Dr. Jeff Hallo, Assistant Professor, Clemson University. The questions in both surveys are similar to those used in previous studies at several other national park areas. Many of the questions appear in the NPS Pool of Known Questions.

10. **Total Number of Initial Contacts | Expected Respondents:**

Transportation Experience Survey  
Visitor Experience Survey

2133	1602
1872	1498

11. **Estimated Time to Complete Initial Contact | Instrument (mins.):**

2	15
2	10

12. **Total Burden Hours:**

472
312

13. **Reporting Plan:**

The results of these information collection activities will be presented in a summary report to the NPS. The key estimates that will be derived from the data will be descriptive in nature, primarily measures of central tendency (mean and median), dispersion (standard deviation), and frequency distributions. Some tests for differences in means and proportions may be done.

One electronic version (in PDF and MS Word file formats) and 20 hard copies of the final report will be provided to the park representatives at the following address: Bret Meldrum, Visitor Use and Social Sciences, Resources Management and Science Division Yosemite National Park, 95389. One electronic version (in PDF file format) and 2 hard copies of the final report will be provided to the NPS Denver Service Center at the following address: National Park Service, Denver

Service Center, P.O. Box 25287, Denver, CO 80225-0287. One electronic version (in PDF file format) and 2 hard copies of the final report will be provided to the NPS Social Science Program at the following address: National Park Service, 1849 C St., NW (2300) Washington, DC 20240, for inclusion in the Social Science Studies Collection.

## References

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- Wang, B. and Manning, R. (1999). Computer Simulation Modeling for Recreation Management: A Study on Carriage Road Use in Acadia National Park, Maine, USA. *Environmental Management*, 23(2):193-203.
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- White, D. D., van Riper, C. J., Wodrich, J. A., Aquino, J. F., & McKinney, C. (2007). Canyon de Chelly National Monument Visitor Survey Final Technical Report. Phoenix, AZ: Arizona State University.
- White, D. D., Youngs, Y. L., Wodrich, J. A., & Borcharding, T. (2006). Visitor Experiences and Transportation Systems in Yosemite National Park (Final Report to National Park Service). Tempe: Arizona State University.
- Youngs, Y. L., White, D. D., & Wodrich, J. A. (2008). Transportation systems as cultural landscapes in national parks: The case of Yosemite. *Society & Natural Resources*, 21(9), 797 - 811.



**National Park Service**  
**Yosemite National Park**  
**California**

National Park Service  
U.S. Department of the  
Interior



# Yosemite National Park Transportation Experience Survey



**Dear Yosemite National Park Visitor:**

We are conducting this survey to learn more about visitors to Yosemite National Park (NP) so that we can improve our service to you. You are one of a select number of people randomly chosen for this survey, so your opinions are important to us. The survey takes about 15 minutes to complete, and all of the information collected will be anonymous. Please read each question carefully and save any comments for the final page. In this questionnaire, your personal group is defined as anyone that you are traveling with, such as spouse, partner, family, or friends. This does not include the larger group that you might be traveling with, such as school, church, scouts, or tour group.

1. Including yourself, how many people are in your personal group during this visit? **[1. GRP3]**  
\_\_\_\_\_ Number of people

2. On this visit to Yosemite National Park, how long did you and your personal group spend visiting the **park**? Please list partial hours or days as 1/4, 1/2, 3/4. **[3. TRIPC11]**

\_\_\_\_\_ Number of hours **if less than 24 hours, OR**

\_\_\_\_\_ Number of days **if 24 hours or more**

3. Before this visit, had you ever been to Yosemite NP? **[1. Variation VISITHIS1]**

No, this is my first visit to Yosemite NP → Go on to question 4

Yes

↓

c. If yes, how many times have you visited Yosemite NP in the past five years?

\_\_\_\_\_ Visits in past five years or \_\_\_\_\_ Don't know

4. On this visit, what form of transportation did you and your personal group use to enter Yosemite NP? **[3. TRANS1]**

Automobile such as a car, SUV, or pickup

Recreational Vehicle (RV)

Motorcycle

Commercial tour bus

Yosemite Area Regional Transportation System (YARTS Bus)

Bicycle

Walk

Other (Please specify \_\_\_\_\_)

5. On this visit, how many total vehicles did you and your personal group use to enter the park? **[Topic Area 2 – Trip/Visit Characteristics]**

\_\_\_\_\_ Vehicles

6. We would like to know how many vehicles could use the roadways without it being too congested. To help judge this, we have a series of photographs that show different numbers of vehicles on the roadways. (Please look at the photographs). Please rate each photograph by indicating how acceptable you find it based upon the number of vehicles shown. A rating of -4 means the number of vehicles is very unacceptable and rating of +4 means the number of vehicles is very acceptable. (Circle one number for each photograph.) **[5. VERP1]**

	Very Unacceptable					Very Acceptable			
Photo 1	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 2	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 3	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 4	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 5	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 6	-4	-3	-2	-1	0	+1	+2	+3	+4

7. Which photograph shows the number of vehicles that you would prefer to see? **[5. VERP2]**

Photo number: \_\_\_\_\_

8. Which photograph shows the number vehicles on the roadway that would be so unacceptable that you would no longer visit this area of the park? (If none of the photographs represent this condition, you may indicate that.) **[Topic Area 6 - Individual Perceptions of their Park Experiences]**

Photo number: \_\_\_\_\_

OR

None of the photographs are so unacceptable that I would no longer visit this area

9. Which photograph shows the number of people that you think the National Park Service should allow on this roadway? In other words, at what point do you think vehicles should be restricted from using this roadway? (If you think vehicle use should not be restricted at any point represented by the photographs, or not restricted at all, you may indicate that.) **[5. VERP3]**

Photo number: \_\_\_\_\_

OR

None of the photographs show a high enough number of vehicles to restrict vehicle use

OR

The number of vehicles using the roadway in this area should not be restricted at all

10. Which photograph looks most like the amount of vehicles that you saw today? **[5. VERP4]**

Photo number: \_\_\_\_\_

11. Which photograph looks most like the amount of vehicles that you expected to see? **[Topic Area 6 - Individual Perceptions of their Park Experiences]**

Photo number: \_\_\_\_\_

OR

I didn't know what to expect

For the following questions, please think about the specific road segment you most recently traveled (Please refer to map.)

12. Approximately how long did it take you to travel [road segment]? **[Topic Area 2 – Trip/Visit Characteristics]**

Time in minutes: \_\_\_\_\_

13. How acceptable was it to you to take this amount of time to travel [road segment]? **[Topic Area 6 - Individual Perceptions of their Park Experiences]**

Very Unacceptable								Very Acceptable	
-4	-3	-2	-1	0	+1	+2	+3	+4	

14. Did you stop at attraction sites or scenic pullouts along [road segment] to participate in recreation activities, such as viewing scenery, walking/hiking, or picnicking? **[Topic Area 2 – Trip/Visit Characteristics]**

No, → Go on to question 15

Yes

↓

b) If yes, which attraction sites or scenic pullouts did you and your group visit along [road segment], for how long did you visit each site, and what activities did you participate in? **[3. Variation ITIN1]**

Attraction site / scenic pullout	Time in minutes	Recreation activities
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

15. What amount of time would you prefer it to take to travel [road segment], not including time spent at attraction sites or scenic pullouts? **[5. Variation VERP2]**

Time in minutes: \_\_\_\_\_

OR

Don't know

16. What amount of time to travel [road segment] would be so unacceptable that you would no longer visit this area of the park, not including time spent at attraction sites or scenic pullouts? (If no amount of time represents this condition, you may indicate that.) **[Topic Area 6 - Individual Perceptions of their Park Experiences]**

Time in minutes: \_\_\_\_\_

OR

No amount of time is so unacceptable that I would no longer visit this area of the park

OR

Don't know

17. What is the maximum amount of time to travel [road segment] that National Park Service should allow, not including time spent at attraction sites or scenic pullouts? In other words, at what point do you think vehicles should be restricted from using this roadway? (If you think vehicles should not be restricted at any point represented by the photographs, or not restricted at all, you may indicate that.) **[5. Variation VERP3]**

Time in minutes: \_\_\_\_\_

OR

No amount of time is so unacceptable so as to restrict vehicles using the roadway

OR

The number of vehicles using the roadway in this area should not be restricted at all

18. We would like to know how you feel about traveling on roadways in Yosemite NP. For each item below please rate how much you think it describes the road segment you most recently traveled. **[Topic Area 6 - Individual Perceptions of their Park Experiences]**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
You have easy access to important park sites and attractions	1	2	3	4	5
You have little impact on the park's natural environment	1	2	3	4	5
It takes too long to get where you want to go	1	2	3	4	5
It is easy to access scenic overlooks/vistas	1	2	3	4	5
You hear natural sounds					
You feel stressed while traveling	1	2	3	4	5
You experience a sense of freedom	1	2	3	4	5
You connect with the natural environment	1	2	3	4	5
You have trouble finding parking	1	2	3	4	5
You could go "where you want, when you want"	1	2	3	4	5
You experience conflict	1	2	3	4	5
You feel crowded	1	2	3	4	5

19. To what extent do you feel the following issues are a problem in Yosemite NP? **[6. OPMGMT2]**

	Not a Problem	A Small Problem	A Big Problem	Don't Know
Traffic congestion at park entrance	1	2	3	DK
Aggressiveness of other drivers	1	2	3	DK
Lack of convenient parking at scenic overlooks	1	2	3	DK
Difficulty finding your way around	1	2	3	DK
Conflict between vehicles and pedestrians	1	2	3	DK
Lack of convenient parking at visitor center / park facilities	1	2	3	DK
Conflict between vehicles and bicycles	1	2	3	DK
Traffic congestion on park roadways	1	2	3	DK
Traffic congestion at park exit	1	2	3	DK
Lack of convenient parking at attraction sites	1	2	3	DK
Conflict between vehicles and shuttle buses	1	2	3	DK

20. Please rate your level of support or opposition for the following transportation management options for managing visitor use in Yosemite NP. **[6. OPMGMT1]**

	Strongly Support	Support	Neutral	Oppose	Strongly Oppose
Provide additional pull-outs for scenic views / attraction sites	1	2	3	4	5
Temporarily close congested park roads	1	2	3	4	5
Divert visitor traffic away from congested roads or attractions	1	2	3	4	5
Require day-use reservation for vehicles to enter Yosemite NP	1	2	3	4	5
Offer more frequent park shuttle bus service (free)	1	2	3	4	5
Limit the number of private vehicles entering the park	1	2	3	4	5
Add park shuttle bus service (free) to more areas of the park	1	2	3	4	5
Require use of park-and-ride shuttle system with automobile parking inside Yosemite NP	1	2	3	4	5
Improve directional signage	1	2	3	4	5

Your response to the following background questions is greatly appreciated. This information is used to make sure we accurately represent visitors to Yosemite NP.

21. Are you ...? **[1. GEND1]**

- Male
- Female

22. What is your age? \_\_\_\_\_ **[1. AGE2]**

23. Do you live in the United States? **[1. RES3]**

- Yes (What is your Zip Code? \_\_\_\_\_)
- No (What country do you live in? \_\_\_\_\_)

24. Please indicate the highest level of education that you have attained. **[1. Variation ED2]**

- Less than high school
- High School Diploma/GED
- Technical school or Associates Degree
- Bachelor's Degree
- Master's Degree
- Ph.D., M.D., J.D., or equivalent

25. For you only, are you Hispanic or Latino? (Check one) **[1. RACE.ETH2]**
- Yes, Hispanic or Latino
  - No, not Hispanic or Latino
26. For you only, are you of Middle Eastern/Arab ancestry/descent? (Check one) **[1. Variation RACE/ETH2]**
- Yes, of Middle Eastern/Arab ancestry/descent
  - No, not of Middle Eastern/Arab ancestry/descent
27. For you only, which of these categories best describes your race? (Check one or more) **[1. RACE/ETH3]**
- American Indian or Alaska Native
  - Asian
  - Black or African American
  - Native Hawaiian or other Pacific Islander
  - White
28. What language (*if any other than English*) is frequently spoken in your home? **[1. LANG1]**

\_\_\_\_\_

*Thank you for helping us with this important study. If there is anything else you would like to tell us, please do so in the space below. [6. OPMGMT7]*



**PRIVACY ACT and PAPERWORK REDUCTION ACT STATEMENT:** 16 U.S.C. 1a-7 authorizes collection of this information. This information will be used by park managers to better serve the public. Response to this request is voluntary and anonymous. No action may be taken against you for refusing to supply the information requested. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

**BURDEN ESTIMATE STATEMENT:** Public reporting burden for this form is estimated to average 15 minutes per response. Direct comments regarding the burden estimate or any other aspect of this form to Bret Meldrum, Branch Chief, Visitor Use and Social Sciences, Resources Management and Science Division, Yosemite National Park, (209)379-1216, [bret\\_meldrum@nps.gov](mailto:bret_meldrum@nps.gov).

# Yosemite National Park Visitor Experience Survey 2010



ID \_\_\_\_\_

Date \_\_\_\_\_

**Dear Yosemite National Park Visitor:**

We are conducting this survey to learn more about visitors to Yosemite National Park (NP) so that we can improve our service to you. You are one of a select number of people randomly chosen for this survey, so your opinions are important to us. The survey takes about 10 minutes to complete, and all of the information collected will be anonymous. Please read each question carefully and save any comments for the final page. In this questionnaire, your personal group is defined as anyone that you are traveling with, such as spouse, partner, family, or friends. This does not include the larger group that you might be traveling with, such as school, church, scouts, or tour group.

**Questions 1-2b - Topic Area 1 – Individual Characteristics**

1. How many people (including you) are in your personal group today? **[1. GRP3]**

Number of people: \_\_\_\_\_

2a. What kind of personal group (not guided tour/school group) were you with? (Circle one.) **[1. GRP5]**

1. Alone
2. Friends
3. Family
4. Family and friends
5. Other (Please specify: \_\_\_\_\_)

b. Were you and your personal group with the following type of groups? (Circle one answer for each group type.) **[1. GRP6]**

Guided tour group	Yes	No
School/educational group	Yes	No
Other organized group (such as business group, scout group, etc.)	Yes	No

**Questions 3-4-5 – Topic Area 2 – Trip/Visit Characteristics**

3. **[Hetch Hetchy survey only]** Is Hetch Hetchy the only location you visited or plan to visit today? (Circle one number.) **[Topic Area 2 - Trip/Visit Characteristics]**

1. Yes
2. No

4. **[Hetch Hetchy, Mariposa Grove surveys only]** How did you travel to Hetch Hetchy **[Mariposa Grove]** today? (Circle one number.) **[3. Variation TRANS1]**

1. Park shuttle bus
2. Passenger vehicle (including rental car)
3. Tour bus
4. Bicycle
5. Walked from another park location (please specify) \_\_\_\_\_
6. Other (please specify) \_\_\_\_\_

4. **[Yosemite Falls, Yosemite Valley Swinging Bridge, Wawona Swinging Bridge, Tuolumne surveys only]** How did you travel to Lower Yosemite Falls [the Wawona Swinging Bridge] [the Yosemite Valley Swinging Bridge] [Tuolumne Meadows] today? (Circle one number.) **[3. Variation TRANS1]**

1. Park shuttle bus
2. Passenger vehicle, including rental car (please circle parking location)

**[Site specific list of parking locations: Wawona Swinging Bridge; Yosemite Valley Swinging Bridge; Tuolumne Meadows surveys]**

Parking lot 1

Parking lot 2

Parking lot 3

Parking lot 4

Parking lot 5

Don't know/not sure

Other (please specify): \_\_\_\_\_

**[Site specific list of parking locations: Lower Yosemite Falls survey]**

Yosemite Lodge

Yosemite Village

Day Use Parking Area (Camp 6)

Roadside Parking

Don't know/not sure

Other (please specify) \_\_\_\_\_

3. Bicycle
4. Walked from other park location (please specify) \_\_\_\_\_
5. Other (please specify) \_\_\_\_\_

5a. **[Tuolumne Meadows survey only]** Where did you start your hike today? (Circle one number.) **[3. Variation TBACK6]**

1. Dog Lake Trailhead
2. Stables
3. Other trailheads on Tioga Road (please circle trailhead location)

Trailhead parking lot 1

Trailhead parking lot 2

Trailhead parking lot 3

Trailhead parking lot 4

Trailhead parking lot 5

Don't know/not sure

Other (please specify): \_\_\_\_\_

4. In the backcountry
5. Other (please specify): \_\_\_\_\_

5b. **[Tuolumne Meadows, Hetch Hetchy surveys only]** Was your hike today a day hike on the trail or part of overnight backpacking trip? **[Topic Area 2 - Trip/Visit Characteristics]**

1. Day hike
2. Part of an overnight backpacking trip

- 6a. **[6a – 6f: Tuolumne Meadows, Hetch Hetchy surveys only]** We would like to know how many other hikers you think it is acceptable to see at Tuolumne Meadows **[Hetch Hetchy]** without the trails you hiked today being too crowded. Please rate the acceptability of each of the following numbers of other hikers met per day on the trails you hiked today. A rating of “-4” means the number of other hikers seen is very unacceptable, and a rating of “+4” means the number of other hikers seen is very acceptable. (Circle one number for each of the numbers of other hikers seen.) **[5. Variation VERP1]**

	Very Unacceptable					Very Acceptable			
No other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
10 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
20 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
30 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
40 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
50 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
60 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
70 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
80 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
90 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
100 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4
More than 100 other hikers	-4	-3	-2	-1	0	+1	+2	+3	+4

- b. What is the number of other hikers per day that you would prefer to see along the trails you hiked today? **[5. Variation VERP2]**

Preferred number of other hikers seen per day: \_\_\_\_\_ OR  Don't Know

- c. What is the maximum number of hikers per day that you think you could see before you would no longer hike the trails you hiked today? If you would continue to hike these trails regardless of the number of other hikers seen, you may indicate that. **[Topic Area 6 - Individual Perceptions of their Park Experiences]**

Maximum number of other hikers seen per day before you would no longer hike these trails: \_\_\_\_\_

OR

- I would continue to hike these trails regardless of the number of other hikers seen.

- d. What is the maximum number of other hikers seen per day that you think the National Park Service should allow on the trails you hiked today? In other words, at what point do you think visitors should be restricted from hiking on these trails? If you think the number of hikers should not be restricted, you may indicate that. **[5. Variation VERP3]**

Maximum number of hikers seen per day that should be allowed: \_\_\_\_\_

OR

The number of hikers on these trails should not be restricted.

- e. What is the approximate number of other hikers you saw today while hiking these trails? **[5. Variation VERP4]**

Approximate number of other hikers seen: \_\_\_\_\_

- f. **[Tuolumne Meadows survey only]** Approximately how long did you spend hiking on these trails today? **[3. Variation TRIPC11]**

\_\_\_\_\_ Number of minutes, if less than 60 minutes

OR

\_\_\_\_\_ Number of hours

- 7a. **[7a – 7c: Lower Yosemite Falls, Mariposa Grove surveys only]** We would like to know how many people you think could walk on the Lower Yosemite Falls **[Mariposa Grove]** trails without this area being too crowded. To help judge this, we have a series of photographs that shows different numbers of people on a section of trail. **(Please look at the photographs in Panel A.)** Please rate each photograph by indicating how acceptable you find it based on the number of people shown. A rating of “-4” means the number of people is very unacceptable, and a rating of “+4” means the number of people is very acceptable. (Circle one number for each photograph.) **[5. VERP1]**

	Very Unacceptable					Very Acceptable			
Photo 1.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 2.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 3.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 4.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 5.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 6.....	-4	-3	-2	-1	0	+1	+2	+3	+4

- b. Which photograph shows the number of people you would prefer to see on the trail? **[5. VERP2]**

Photo number: \_\_\_\_\_ OR  Don't Know

- c. Which photograph shows the number of people that would be so unacceptable that you would no longer walk on the trail? If none of the photographs represent this condition, you may indicate that. **[Topic Area 6 - Individual Perceptions of their Park Experiences]**

Photo number: \_\_\_\_\_

OR

- None of the photographs are so unacceptable that I would no longer walk on the trail.

- d. Which photograph shows the highest number of people you think the National Park Service should allow? In other words, at what point should people be restricted from walking on the trail? If you think use should not be restricted at any point represented in the photographs, or not restricted at all, you may indicate that. **[5. VERP3]**

Photo number: \_\_\_\_\_

OR

- None of the photographs show a high enough number of people to restrict people from walking on the trail.

OR

- The number of people walking on the trail should not be restricted.

- e. Which photograph looks most like the number of people you typically saw today walking on the trail? **[5. VERP4]**

Photo number: \_\_\_\_\_

- 8a. **[8a – 8e: Hetch Hetchy, Lower Yosemite Falls, Wawona Swinging Bridge, Yosemite Valley Swinging Bridge surveys only]** We would like to know how many people you think could visit the dam [\[Lower Yosemite Falls trail\]](#) [\[Swinging Bridge\]](#) without this area being too crowded. To help judge this, we have a series of photographs that shows different numbers of people on the dam [\[trail\]](#) [\[bridge\]](#). Please rate each photograph by indicating how acceptable you find it based on the number of people shown. A rating of “-4” means the number of people is very unacceptable, and a rating of “+4” means the number of people is very acceptable. (Circle one number for each photograph.) **[5.VERP1]**

	Very Unacceptable					Very Acceptable			
Photo 1.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 2.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 3.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 4.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 5.....	-4	-3	-2	-1	0	+1	+2	+3	+4
Photo 6.....	-4	-3	-2	-1	0	+1	+2	+3	+4

- b. Which photograph shows the number of people you would prefer to see? **[5. VERP2]**

Photo number: \_\_\_\_\_ OR  Don't Know

- c. Which photograph shows the number of people that would be so unacceptable that you would no longer visit the dam [\[Lower Yosemite Falls trail\]](#) [\[Swinging Bridge\]](#)? If none of the photographs represent this condition, you may indicate that. **[Topic Area 6 - Individual Perceptions of their Park Experiences]**

Photo number: \_\_\_\_\_

OR

- None of the photographs are so unacceptable that I would no longer visit the dam [\[Lower Yosemite Falls trail\]](#) [\[Swinging Bridge\]](#).

- d. Which photograph shows the highest number of people you think the National Park Service should allow? In other words, at what point should people be restricted from visiting the dam [\[Lower Yosemite Falls trail\]](#) [\[Swinging Bridge\]](#)? If you think use should not be restricted at any point represented in the photographs, or not restricted at all, you may indicate that. **[5. VERP3]**

Photo number: \_\_\_\_\_

OR

- None of the photographs show a high enough number of people to restrict people from visiting the dam [\[Lower Yosemite Falls trail\]](#) [\[Swinging Bridge\]](#).

OR

- The number of people visiting the dam [\[Lower Yosemite Falls trail\]](#) [\[Swinging Bridge\]](#) should not be restricted.



- e. Which photograph looks most like the number of people you typically saw today on the dam [Lower Yosemite Falls trail] [Swinging Bridge]? [5. VERP4]

Photo number: \_\_\_\_\_

9. Approximately how long did you stay at Hetch Hetchy [Mariposa Grove] [Lower Yosemite Falls] [Yosemite Valley Swinging Bridge] [Wawona Swinging Bridge] today? [3. Variation TRIPC11]

\_\_\_\_\_ Number of minutes, if less than 60 minutes

OR

\_\_\_\_\_ Number of hours

10. The following questions ask your opinions about issues that apply to Yosemite National Park as a whole. Please indicate the extent to which you agree or disagree with the following statements. (Circle one number for each statement.) [6. Variation OPMGMT1]

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
a. I generally found Yosemite National Park to be too crowded	1	2	3	4	5
b. There should be a limit on the number of people allowed to use Yosemite National Park at any one time	1	2	3	4	5
c. There should be a limit the number of private vehicles entering the park	1	2	3	4	5
d. Additional pull-outs should be provided	1	2	3	4	5
e. Way-finding and signs should be improved	1	2	3	4	5
f. Optional shuttle service from gateway communities should be provided	1	2	3	4	5
g. Multi-use / bike paths should be added	1	2	3	4	5
h. Pedestrian underpasses/overpasses at key road intersections should be added	1	2	3	4	5
i. Road and traffic conditions in Yosemite National Park create a safety hazard	1	2	3	4	5
j. The number of people using Yosemite National Park is about right	1	2	3	4	5

11a. Do you live in the United States? **1. RES3]**

- Yes (What is your Zip Code? \_\_\_\_\_)
- No (What country do you live in? \_\_\_\_\_)

b. What is your age? **[1. AGE2]**

Age\_\_\_\_\_

c. Are you...? (Circle one number.) **[1. GEND1]**

- 1. Male
- 2. Female

d. Please indicate the highest level of education that you have attained. (Please circle one number.) **[1. Variation ED2]**

- 1. Less than high school
- 2. High school graduate/GED
- 3. Technical school or Associates Degree
- 4. Bachelor's Degree
- 5. Master's Degree
- 6. Ph.D., M.D., J.D., or equivalent

e. For you only, are you Hispanic or Latino? (Circle one number.) **[1. RACE.ETH2]**

- 1. Yes, Hispanic or Latino
- 2. No, not Hispanic or Latino

For you only, are you of Middle Eastern/Arab ancestry/descent? (Circle one number.) **[1. Variation RACE/ETH2]**

- 1. Yes, of Middle Eastern/Arab ancestry/descent
- 2. No, not of Middle Eastern/Arab ancestry/descent

For you only, which of these categories best describes your race? (Select one or more.) **[1. RACE/ETH3]**

- 1. American Indian or Alaska Native
- 2. Asian
- 3. Black or African American
- 4. Native Hawaiian or other Pacific Islander
- 5. White

Thank you for your help with this survey! Please return this completed questionnaire to the surveyor.

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