

Glen Canyon Angler Survey

[CV Question]

PAPERWORK REDUCTION ACT STATEMENT The National Park Service is authorized by 16 U.S.C. 1a-7 to collect this information. This information will be used by park managers evaluate fishing trips at Lee's Ferry. Response to this request is voluntary. No action may be taken against you for refusing to supply the information requested. Please do not put your name or that of any member of your group on the questionnaire. The permanent data associated with this collection will be anonymous.

BURDEN ESTIMATE: The public reporting burden for this form is estimated to average 20 minutes per response. Direct comments regarding the burden estimate or any other aspect of this form to: the NPS Information Collection Review Coordinator, National Park Service, 1201 Oakridge Dr., Fort Collins, CO 80525.

On ___ [DATE]_____, you were contacted by Arizona Game and Fish and asked to participate in a short creel survey while fishing at Lee's Ferry. We would like you to think about that trip when completing this survey. On that particular trip you reported that you caught ___##___ fish (including any fish you may have released). The largest fish you caught that day was about _____lbs. and _____inches long.

When thinking about that trip to Lee's Ferry we would like for you to tell us a little about your experiences.

Questions 1-9 will be used to identify key characteristics of the fishing trips (type of fishing, catch, perceived quality of trip), and some of the reasons the anglers fished this stretch of water, as well as query the importance of a broad range of trip features to the respondent.

1. During that fishing trip were you? (CIRCLE ONE NUMBER)
1 USING A HIRED FISHING GUIDE
2 FISHING ON YOUR OWN WITHOUT A GUIDE

2. Overall, how would you rate the fishing on that trip? (CIRCLE ONE NUMBER)
1 MUCH WORSE THAN EXPECTED
2 WORSE THAN EXPECTED
3 AS EXPECTED
4 BETTER THAN EXPECTED
5 MUCH BETTER THAN EXPECTED

3. On that trip, what was your primary method of fishing? (CIRCLE ONE NUMBER)
1 FROM A BOAT
2 FROM THE BANK

4. During that trip, what was the main type of equipment you used? (CIRCLE ONE NUMBER)
1 FLY FISHING
2 SPIN FISHING WITH ARTIFICIAL LURES
3 OTHER_____

5. How many days, in total, did you spend fishing during that trip?
TOTAL DAYS OF FISHING AT LEE'S FERRY _____

6. How many fish did you, personally, catch on that trip? (Include any fish you may have released.)
_____ FISH

What was the biggest fish you, personally, caught on that trip? (Give your best estimate)
_____ LBS _____ INCHES

How many fish did you personally, keep on that trip?
_____ FISH

7. How would you best describe your reason(s) for taking the trip from home you were on when you were contacted at Lee's Ferry? (CIRCLE ONE NUMBER)

I TOOK THE TRIP TO LEE'S FERRY BECAUSE FISHING WAS:

1. NOT AT ALL IMPORTANT
2. SLIGHTLY IMPORTANT
3. MODERATELY IMPORTANT
4. VERY IMPORTANT
5. EXTREMELY IMPORTANT

In this next section we would like to ask you a little more about your experiences and expectations while fishing in the Lee's Ferry area.

8. Fishing trips at Lee's Ferry have a number of features. People differ on what they feel is important for them personally. In this section, there are a number of features of a Lee's Ferry fishing trip. Please indicate how important each feature was for you on your trip. (CIRCLE ONE NUMBER FOR EACH FEATURE). Then, in the left column, check three boxes that you would use to describe the features of an ideal fishing trip.

<u>Select your top three features of an ideal fishing trip</u>	Features of a good Trip	Very Important	Somewhat Important	Not Important
<input type="checkbox"/>	Catching a trophy fish	1	2	3
<input type="checkbox"/>	Catching a limit of fish	1	2	3
<input type="checkbox"/>	Being in a natural setting	1	2	3
<input type="checkbox"/>	Being with family and friends	1	2	3
<input type="checkbox"/>	Interacting with my guide	1	2	3
<input type="checkbox"/>	Learning about the history of Glen Canyon	1	2	3
<input type="checkbox"/>	Relaxing; getting away from it all	1	2	3
<input type="checkbox"/>	Stopping for lunch along the river	1	2	3
<input type="checkbox"/>	Enjoying Good weather	1	2	3
<input type="checkbox"/>	Seeing few others while on the river	1	2	3
<input type="checkbox"/>	Seeing archeological sites in the canyon	1	2	3
<input type="checkbox"/>	Camping along the river	1	2	3
<input type="checkbox"/>	Experiencing High water level	1	2	3
<input type="checkbox"/>	Experiencing Low water level	1	2	3
<input type="checkbox"/>	Being in the unique natural setting of Glen Canyon	1	2	3

9. How would you describe the destinations of the trip you were on when you were contacted at Lee's Ferry?
(CIRCLE ONE NUMBER)

- 1 LEE'S FERRY WAS THE SOLE DESTINATION OF THAT TRIP
- 2 LEE'S FERRY WAS THE MOST IMPORTANT DESTINATION OF THAT TRIP
- 3 LEE'S FERRY WAS ONLY ONE OF SEVERAL EQUALLY IMPORTANT DESTINATIONS ON THAT TRIP
- 4 LEE'S FERRY WAS JUST AN INCIDENTAL STOP ON THE WAY TO SOME OTHER DESTINATION

Questions 10-14 will be used to identify key aspects of the mode of travel the anglers used to access the Lee's Ferry fishing site. The responses will be used to inform and interpret estimated trip costs for anglers

10. What type of transportation did you use to travel to Lee's Ferry? (CIRCLE ONE NUMBER)

- 1 Airplane → **(Skip to Question 14)**
- 2 PERSONAL VEHICLE
3. RENTAL VEHICLE
4. OTHER (please specify) _____

11. Did you drive to Lee's Ferry for this fishing trip?

- 1 YES → How much time did you spend driving one-way? TOTAL HOURS OF DRIVING _____
2. NO → Skip to question 13

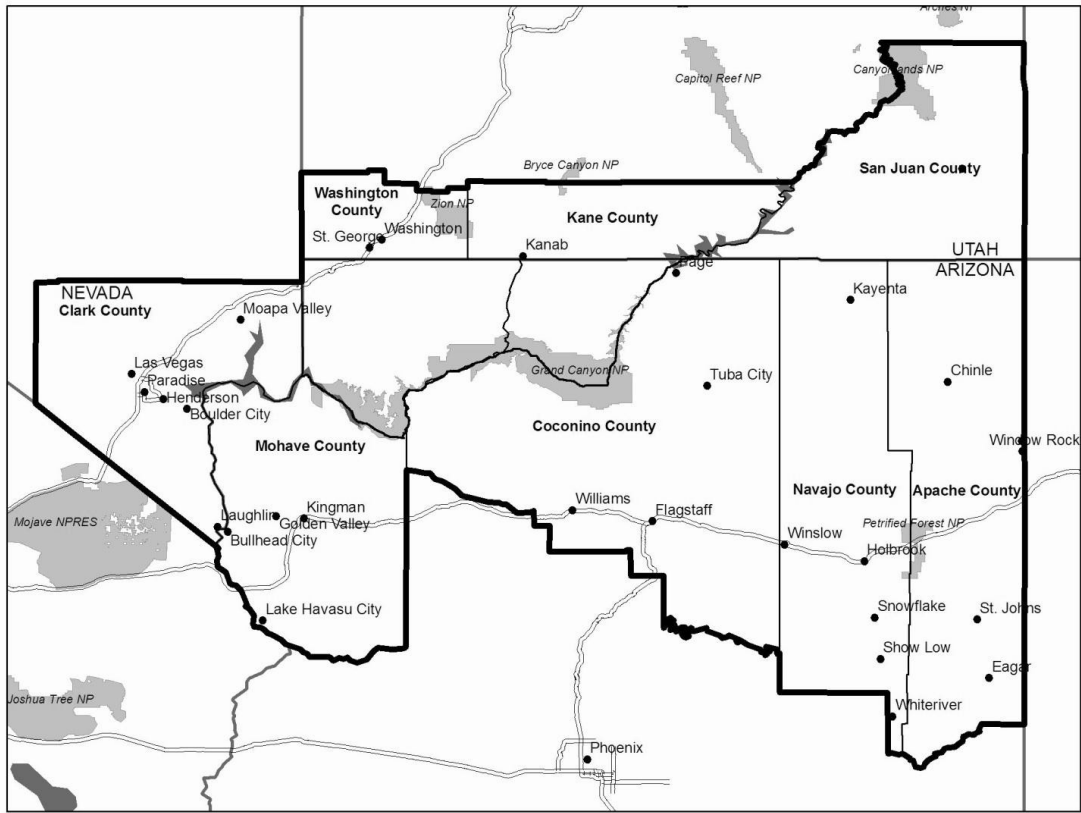
12. Did you pull a boat or trailer?

- 1 YES
- 2 NO

13. How many people travelled with you (in the same vehicle) to Lee's Ferry?

MYSELF AND _____ OTHER PEOPLE

For questions 15-16 the respondent will use the map below to indicate the locations in the “area” where they made purchases or spent money for lodging, gas, etc. This is used in cost estimation models that will help establish the level of spending by anglers on the trip and to identify the locations of spending. The areas that we are interested to know more about are within the framed areas on the map below (specifically, locations in Washington, Kane and San Juan Counties, Utah; Clark County, Nevada; Mohave, Coconino, Navaho and Apache Counties, Arizona).



15. Using the map above, please tell us where you stayed during your trip to the Lee’s Ferry area? The map above shows the location of the cities listed. **Please check all of the locations that apply and then indicate the number of nights spent in each place or indicate “other” if the place is outside the area or not listed on the map.**

- Kanab, UT → number of nights _____
- St. George, UT → number of nights _____
- Page, AZ → number of nights _____
- Grand Canyon Village, AZ → number of nights _____
- Flagstaff, AZ → number of nights _____
- Kingman, AZ → number of nights _____
- Boulder City, NV → number of nights _____
- Henderson, NV → number of nights _____
- Las Vegas, NV → number of nights _____
- Other _____ → number of nights _____

16. Please estimate how much this trip cost. The estimates should only include the costs for you only (and not the cost you may have paid for others in your group). Include only money spent on items specifically for this trip. If an item listed was not specifically purchased for this trip, please put \$0.

In the first column, please write the total amount you spent on the trip to Lee's Ferry. In the second column put only the amount you spent in the counties and towns within the borders highlighted on the map above.

	Total Spent on Trip	Spent in Local Area
Guide fees	\$ _____	\$ _____
Airfare	\$ _____	\$ _____
Car rental	\$ _____	\$ _____
Gas and oil for vehicle and boats	\$ _____	\$ _____
Food and beverages (from grocery stores)	\$ _____	\$ _____
Restaurant meals	\$ _____	\$ _____
Lodging (motels and hotels - before and after trip)	\$ _____	\$ _____
Camping fees	\$ _____	\$ _____
Personal gear (suntan lotion, sunglasses, film for camera)	\$ _____	\$ _____
Boat gear purchased specifically for this trip	\$ _____	\$ _____
Native American art and craft items purchased from roadside vendors	\$ _____	\$ _____
Other (please specify) _____	\$ _____	\$ _____
TOTAL AMOUNT TRIP COST (Please add all payments)	\$ _____	\$ _____

Question 17 will be used to provide an estimate of the net economic value of the anglers' fishing trips on this stretch of the Colorado River. The dollar amount (\$XX) below will be randomly replaced with the different bid amounts of which each respondent will randomly be given one amount (\$10, \$25, \$75, \$100, \$150, \$175, , \$500, \$750)

17. If your expenses had been \$ __XX__ more than the total in the above calculations, would you still have taken this trip to Lee's Ferry? Remember, if your trip cost you more than you actually spent, you would have less money to spend on other things. (CIRCLE ONE NUMBER)

- 1 YES, the trip would still be worthwhile
- 2 NO, it would not be worthwhile

Questions 18-29. This section will contain four hypothetical scenarios. Each scenario will be followed by three questions that will be used to inform the way anticipated angler use and value of the resource varies with changing flow levels. This set of questions will include both contingent behavior (changes in use levels) and contingent valuation (changes in trip value) questions.

Note to Reviewer: We will use the respondent on site intercept date. We will use a record of flow levels for that date and will provide this information to the respondent as the way to anchor their understanding of the flow levels they experienced during their trip.

In this section we would like to know a little more about what characteristics of a Lee's Ferry fishing trip are most important to you.

PLEASE READ CAREFULLY

River flows at Lee's Ferry are affected by the operation of Glen Canyon Dam. River flows, in turn, may have an impact on the quality of a fishing trip at Lee's Ferry in many ways. Fish might be easier or harder to catch, access along the banks may be better or worse, or boats may be easier or harder to handle.

In the next series of questions we will describe several types of river conditions at Lee's Ferry. For each condition, we have described the potential effects on fishing. Our descriptions of these effects are based on previous studies of fishing at Lee's Ferry.

They are included to help you evaluate the fishing under the various conditions. Since these descriptions are based on the general opinions of Lee's Ferry anglers, your own personal opinions about the effects may differ. For each type of condition, we would like you to tell us how the river flow would have affected the quality of the fishing trip you were on when you filled out the short survey. Records from Glen Canyon Dam show that the average water flow that day was _____ cubic feet per second (cfs), with a high flow of ____ cfs and a low flow of _____ cfs.

To help put these numbers in perspective, bank and boat anglers sometimes have difficulty fishing at high water levels (over 25,000 cfs) because of the swift current. In addition, some anglers may experience trouble in handling their boats in flows above 25,000 cfs. In the past, the National Park Service has imposed a 25 horsepower requirement on motors when flows have exceeded 40,000 cfs. On the other end of the scale, low water levels (below 9,000 cfs) may tend to concentrate the fish. While low water levels may make access easier for bank anglers, boat anglers start experiencing more damage to boats and motors. In addition, it is known that very few boat anglers can pass over the sand and gravel bar three miles upstream from Lee's Ferry when the flow is less than 3,000 cfs.

Note: In this section, the dollar amount (\$XX) will be replaced with the different bid amounts of which each respondent will randomly be given one amount (\$10, \$25, \$75, \$100, \$150, \$17...\$500, \$750)

CASE 1

Boat anglers have said that getting upstream to fish can sometimes be a problem at low water (3,000 cfs or less). At a constant flow of 3,000 cfs, large boats can't get past the sand and gravel bar three miles upstream from Lee's Ferry, while even very small boats may have to be dragged over slippery rock gravel bars. Consequently, nearly all of the fishing would occur in the three miles just above Lee's Ferry. In addition, damage to boats and motors is somewhat more frequent than at higher water levels. However, low water tends to concentrate fish, and bank anglers can find large areas of exposed gravel and rocks leaving a great deal of space between the water and the edge of the vegetation.

18. Do you think a fishing trip under the conditions described in Case 1 (water level constant at 3,000 cfs) would be better or worse than the trip you took when you were surveyed at Lee's Ferry? (CIRCLE ONE NUMBER)

- 1 BETTER
- 2 WORSE
- 3 ABOUT THE SAME

19. If the river conditions were always like those described for Case 1 (constant flows of 3,000 cfs), would it affect the number of times you would go to Lee's Ferry to fish in a typical year?

- 1 YES---→How so? (CIRCLE ONE NUMBER)
 - 1 I would make FEWER trips per year--How many? _____ FEWER TRIPS PER YEAR
 - 2 I would make MORE trips per year--How many? _____ MORE TRIPS PER YEAR
- 2 NO, IT WOULDN'T AFFECT HOW OFTEN I COME TO LEE'S FERRY TO FISH

We would like you to imagine that you are deciding whether or not to take a trip to Lee's Ferry. The conditions (weather, number of anglers, etc.) on this trip would be the same as when you were participated in the Arizona Game and Fish creel survey, with two exceptions:

- a) The water level would be constant at 3,000 cfs (as described in Case 1 above).
- b) Your expenses increased by \$_XX_ (over the total expenses you calculated in question 16).

20. Would you go on this trip? (CIRCLE ONE NUMBER)

- 1 YES, I WOULD PAY THIS AMOUNT TO TAKE THE TRIP
- 2 NO, I WOULD NOT PAY THIS AMOUNT TO TAKE THE TRIP

CASE 2

Boat anglers seem to experience fewer problems with damage to their boats and motors when the water is at least 10,000 cfs, and boats can get up and downstream with no difficulty. At a flow of 10,000 cfs, bank anglers would still find exposed gravel and rock bars and some room between the water's edge and shore vegetation. In previous studies, about 40 percent of the anglers have said that they feel the fishing is generally better at constant flows of 10,000 cfs than when the water level is higher.

21. Do you think a fishing trip under the conditions described in Case 2 (constant flow of 10,000 cfs) would be better or worse than the trip when you were surveyed at Lee's Ferry? (CIRCLE ONE NUMBER)

- 1 BETTER
- 2 WORSE
- 3 ABOUT THE SAME

22. If the river conditions were always like those described above in Case 2 (constant at 10,000 cfs), would it affect the number of times you would go to Lee's Ferry to fish in a typical year?

- 1 YES----->How so? (CIRCLE ONE NUMBER)
 - 1 I would make FEWER trips per year--How many? _____ FEWER TRIPS PER YEAR
 - 2 I would make MORE trips per year--How many? _____ MORE TRIPS PER YEAR
- 2 NO, IT WOULDN'T AFFECT HOW OFTEN I COME TO LEE'S FERRY TO FISH

We would like you to imagine that you are deciding whether or not to take a trip to Lee's Ferry. The conditions (weather, number of anglers, etc.) on this trip would be the same as when you were participated in the Arizona Game and Fish creel survey, with two exceptions:

- a) The water flow would be constant at 10,000 cfs (as described in Case 2 above).
- b) Your travel expenses increased by \$__XX__ (over the total expenses you calculated in question 16 above).

23. Would you make this trip? (CIRCLE ONE NUMBER)

- 1 YES, I WOULD PAY THIS AMOUNT TO TAKE THE TRIP
- 2 NO, I WOULD NOT PAY THIS AMOUNT TO TAKE THE TRIP

CASE 3

Next, consider a constant flow of 25,000 cfs. There is no minimum motor horsepower restriction, although motors with 10 hp or less may have problems getting upstream. The chance of damage to boats and motors due to obstructions in the water are small, but the high flows of 25,000 cfs may increase the chances of swamping a boat while dragging an anchor, especially for inexperienced boaters. Fish may be less concentrated at this higher flow level. Bank anglers may have less space between the water's edge and bank vegetation, but eddies along the shoreline are often larger and more pronounced. About 12 percent of the anglers in a recent survey felt that fishing was better at 25,000 cfs than at lower water levels in Glen Canyon.

24. Do you think a fishing trip under the conditions described in Case 3 (constant flow of 25,000 cfs) would be better or worse than the trip when you were surveyed at Lee's Ferry?

- 1 BETTER
- 2 WORSE
- 3 ABOUT THE SAME

25. If the river conditions were always like those described above in Case 3 (constant at 25,000 cfs), would it affect the number of times you would go to Lee's Ferry to fish in a typical year? (CIRCLE ONE NUMBER)

- 1 YES---→How so? (CIRCLE ONE NUMBER)
 - 1 I would make FEWER trips per year--How many? _____ FEWER TRIPS PER YEAR
 - 2 I would make MORE trips per year--How many? _____ MORE TRIPS PER YEAR
- 2 NO, IT WOULDN'T AFFECT HOW OFTEN I COME TO LEE'S FERRY TO FISH

We would like you to imagine that you are deciding whether or not to take a trip to Lee's Ferry. The conditions (weather, number of anglers, etc.) on this trip would be the same as when you were participated in the Arizona Game and Fish creel survey, with two exceptions:

- a) The water flow would be constant at 25,000 cfs (see Case 3 above).
- b) Your expenses increased by \$ __XX__ (over the total expenses you calculated in question 16).

26. Would you make this trip? (CIRCLE ONE NUMBER)

- 1 YES, I WOULD PAY THIS AMOUNT TO TAKE THE TRIP
- 2 NO, I WOULD NOT PAY THIS AMOUNT TO TAKE THE TRIP

CASE 4

At constant flows of 40,000 cfs, the current is swift and the Park Service requires all boat motors to have at least a 25 horsepower motor. Large boats can get up and down the river more easily than smaller boats. The chances of damage to boats and motors due to obstructions in the water are smaller than at lower flows. However, for inexperienced boaters the high water increases the chances of boats being swamped while dragging anchors. Eddies along the shoreline are larger and well defined, but bank anglers find the water is up into the bank vegetation and this may make bank fishing more difficult for them. At these high flows, fish feeding patterns may change since fish would generally stay out of the main current. Fish may be harder to find.

27. Do you think a fishing trip under the conditions described above in Case 4 (constant flow of 40,000 cfs) would be better or worse than the trip when you were surveyed at Lee's Ferry?

- 1 BETTER
- 2 WORSE
- 3 ABOUT THE SAME

28. If the river conditions were always like those described above in Case 4 (constant at 40,000 cfs), would it affect the number of times you would go to Lee's Ferry to fish in a typical year? (CIRCLE ONE NUMBER)

- 1 YES----->How so? (CIRCLE ONE NUMBER)
 - 1 I would make FEWER trips per year--How many? ____ FEWER TRIPS PER YEAR
 - 2 I would make MORE trips per year--How many? ____ MORE TRIPS PER YEAR
- 2 NO, IT WOULDN'T AFFECT HOW OFTEN I COME TO LEE'S FERRY TO FISH

We would like you to imagine that you are deciding whether or not to take a trip to Lee's Ferry. The conditions (weather, number of anglers, etc.) on this trip would be the same as when you were participated in the Arizona Game and Fish creel survey, with two exceptions:

- a) The water flow would be constant at 40,000 cfs (see Case 4 above).
- b) Your expenses increased by \$ __XX__ (over the total expenses you calculated in question 16).

29. Would you make this trip? (CIRCLE ONE NUMBER)

- 1 YES, I WOULD PAY THIS AMOUNT TO TAKE THE TRIP
- 2 NO, I WOULD NOT PAY THIS AMOUNT TO TAKE THE TRIP

In the previous sections we asked whether you would still make the trip to Lee's Ferry to fish if your expenses increased by a certain amount.

30. To help us better understand your responses, please tell us whether the following statements were true or not concerning the factors that affected your answers to the expense questions in the section above. (CIRCLE ONE RESPONSE FOR EACH STATEMENT).

Reason	Definitely True	Probably True	Neither True nor False	Probably False	Definitely False
My main concern was that license fees may be increased for fishing at Lee's Ferry.	1	2	3	4	5
My responses reflected my best guess as to whether the described trip would have been worthwhile.	1	2	3	4	5
I just don't want to have to pay more to fish at Lee's Ferry, regardless of the conditions	1	2	3	4	5
My responses reflected the fact that I don't think dollar values should be put on the fishing experience at Lee's Ferry.	1	2	3	4	5

31. Are there any other factors that affected your answers? Please describe: _____

Questions 32- 34 will be used to identify the number and frequency of trips to Lee's Ferry and to determine how important this site is to the angler.

In this section we would like to find out about your fishing background.

32. Was 2014 your first year of fishing at Lee's Ferry? (CIRCLE ONE)

1 YES

2 NO---→ Including this year, how many years have you fished at Lee's Ferry? _____ YEARS

---- --→ About how many trips do you make to Lee's Ferry in an average year? _____ TRIPS

33. Was the fishing trip when you filled out our short survey the only trip you have made to Lee's Ferry in the last 12 months? (CIRCLE ONE)

1 YES

2 NO---→ Including the trip when you filled out our short survey, how many trips have you made in the last 12 months? _____ TRIPS

→ What is the average number of days you spend at Lee's Ferry on a typical fishing trip there? ____ DAYS

34. Some people have many other activities which they enjoy as much as fishing at Lee's Ferry. Others have very few. Which of the following statements most closely reflects how you feel? (CIRCLE ONE)

- 1 IF I COULDN'T GO FISHING AT LEES'S FERRY, I PROBABLY WOULD NOT MISS IT AT ALL AND WOULD FIND SOMETHING ELSE THAT WAS JUST AS ENJOYABLE
- 2 IF I COULDN'T GO FISHING AT LEES'S FERRY, I WOULD MISS IT, BUT NOT AS MUCH AS A LOT OF OTHER THINGS I NOW ENJOY
- 3 IF I COULDN'T GO FISHING AT LEES'S FERRY, I WOULD MISS IT MORE THAN MOST OF THE OTHER INTERESTS I NOW ENJOY
- 4 IF I COULDN'T GO FISHING AT LEES'S FERRY, I WOULD MISS IT MORE THAN ALL OF THE OTHER INTERESTS I NOW ENJOY

IF YOU WERE NOT ABLE TO FISH AT LEE'S FERRY, what would you most likely do with your time instead?

Questions 35-41 will be used to determine baseline demographics about anglers

In this final section, we would like to ask some questions about your background and occupation which will help us compare your answers with those of other people. We stress that all of your answers are completely anonymous.

35. How old are you? _____ years old

36. Are you:

1 MALE

2 FEMALE

37. Which of the following indicates your level of education? (SELECT ONE)

- | | |
|--|--|
| <input type="checkbox"/> 8th grade or less | <input type="checkbox"/> College graduate |
| <input type="checkbox"/> 9th to 11th grade | <input type="checkbox"/> Some graduate work |
| <input type="checkbox"/> 12th grade (high school graduate) | <input type="checkbox"/> Masters, Doctoral, or Professional Degree |
| <input type="checkbox"/> Some college | |

38. Which of the following best describes your employment status? (SELECT ONE)

- | | |
|---|---|
| <input type="checkbox"/> Employed, full time | <input type="checkbox"/> Homemaker |
| <input type="checkbox"/> Employed, part time | <input type="checkbox"/> Unemployed |
| <input type="checkbox"/> Retired, but working full time | <input type="checkbox"/> Student |
| <input type="checkbox"/> Retired, but working part time | <input type="checkbox"/> Other (Please specify) _____ |
| <input type="checkbox"/> Retired, but not working | |

39. Are you Hispanic or Latino? (SELECT ONE)

- Yes
 No

40. Please tell us which of the following best indicates your race. (SELECT ONE OR MORE)

- American Indian or Alaskan Native
 Asian
 Black or African-American
 Native Hawaiian or other Pacific Islander
 White

41. Which of the following best describes your household income before taxes? (SELECT ONE)

- | | |
|--|--|
| <input type="checkbox"/> Less than \$20,000 | <input type="checkbox"/> \$70,000 - \$79,999 |
| <input type="checkbox"/> \$20,000 - \$29,999 | <input type="checkbox"/> \$80,000 - \$89,999 |
| <input type="checkbox"/> \$30,000 - \$39,999 | <input type="checkbox"/> \$90,000 - \$99,999 |
| <input type="checkbox"/> \$40,000 - \$49,999 | <input type="checkbox"/> \$100,000 - \$149,999 |
| <input type="checkbox"/> \$50,000 - \$59,999 | <input type="checkbox"/> \$150,000 - \$199,999 |
| <input type="checkbox"/> \$60,000 - \$69,999 | <input type="checkbox"/> \$200,000 or more |

42. Is there anything else you would like to tell us about your visit to Lee's Ferry? Attach additional pages if needed.

Thanks again for your help. Please place your completed questionnaire in the envelope provided and drop it in any mailbox.