

National Park Service Responses to Suggestions for Additional Information

The June 22, 2011, Survey Instrument Ad Hoc Group (SIAHG) suggested information needs and new survey questions for the direct use valuation studies being designed for Glen Canyon NRA, Grand Canyon NP, and Lake Mead NRA. The National Park Service considered these suggestions and offers the following responses to them.

1. What is the current total annual market value of the Lees Ferry trout fishery (market and nonmarket) to the regional community and what are its components, i.e. hotel and restaurant, guides, retail purchases, etc? What are its non-use values?

RESPONSE: Estimation of market value (and net economic value) along with components of angler expenditures are included in the study design. Non-use values associated with this aspect of river flows and Glen Canyon releases are beyond the scope of the current proposed surveys. Non-use values will be estimated in another survey.

2. What is the current total annual market value of the Glen Canyon Smooth Water Half Day Trips, private rafters, canoeists, kayakers, etc? What are their non-use values?

RESPONSE: Estimation of market value (and net economic value) along with components of day floater expenditures are included in the study design. Non-use values associated with this aspect of river flows and Glen Canyon releases are beyond the scope of the current proposed surveys. Non-use values will be estimated in another survey.

3. How have total annual use and market values for the Lees Ferry trout fishery and recreational boating changed for Pre-Rod and Post-Rod periods?

RESPONSE: This study is designed as a replication of the Bishop et al. study. Accordingly, the Bishop results reflect pre-rod use and values and the current study

will reflect post-rod. The comparison, where appropriate, will be addressed in the post data-collection analysis and reporting.

4. Do Lees Ferry recreational boaters and sports fishers express a significant difference in willingness to pay under differing flow conditions?

RESPONSE: Bishop et al. found significant marginal values associated with flow changes for both whitewater recreational boaters and Glen Canyon anglers in their original study. Revisiting and estimating these values are a central design feature of this study.

5. How has demand for Lees Ferry and Grand Canyon recreational boating (including rafting to Lake Mead) and Lees Ferry sport fishing changed over the period Pre and Post Rod?

RESPONSE: As noted in the response to Point 3, this study is designed as a replication of the Bishop et al. study. Accordingly, the Bishop results reflect pre-rod use and values and the current study will reflect post-rod. The comparison between the two, where appropriate, will be addressed in the post data-collection analysis and reporting.

6. How has crowding, camp size, multiple campsites in an area, etc affected the Grand Canyon experience and expressed values?

RESPONSE: These and a number of other trip attributes are currently explicitly included in the survey design. By having these core trip attributes measured for the current trip it will be feasible to estimate their impact on values.

7. How has Native American use of the Lees Ferry trout fishery changed from the period Pre and Post Rod?

RESPONSE: No information on ethnicity was included in the pre-rod Bishop study. Accordingly, this may be difficult data to find and a difficult comparison to make in the current analysis.

8. Regarding the Grand Canyon rafting experience, can questions be added to capture more clearly why people take this specific trip, isolating specifically trip attributes like unique wilderness experience, solitude, scenic beauty, etc?

RESPONSE: As noted, the Grand Canyon floater survey is a replication of a survey by Bishop et al. The original Bishop survey design was informed by an extensive separate attribute survey which probed floaters' views on what characteristics of their float trips impacted their use levels and trip value. The key attributes included in the current survey reflect the information collected and utilized by Bishop. The Bishop attribute survey is considered valid for the current analysis and will not be replicated.

9. How does the social benefit of the Lees Ferry trout fishery differ for walk-in only and boating anglers?

RESPONSE: This is a key study objective. We have expanded the survey sample for anglers below Lees Ferry down to Badger Rapid. Indicator variables identifying boating and walk-in anglers will allow the estimation of differences between the two groups (sample size permitting).

10. Should case scenarios for contingent valuation more closely approximate expected real variance in operations?

RESPONSE: Once the surveys are finalized and we know the water year conditions we will be sampling under, we will fine-tune the conditions described in the survey to more closely reflect the actual conditions with respect to flow levels and water fluctuations.

11. Collect data on alternatives for the users. Questions should be included as to what are the responder's three favorite fishing locations in the southwest starting with the most favored. For those ranked above the Colorado River, have them list the major attractions to them.
12. Have you considered survey information that should be collected from those not necessarily fishing the Colorado River? Surveys could include regional groups. There are at least 7 active fly fishing groups in Arizona. There are also other fishing and outdoor groups. This provides input on economic lost value.
13. The sampling strategy for the Angler Survey appears to be exclusively focused on fishing users encountered on the water at Lees Ferry. Have you considered the value of adding a broader sampling frame component to include "licensed anglers" to help assess perceived opportunity value foregone?

RESPONSE: These three points all appear to one degree or another to address the issue of identifying anglers who are currently not fishing at Lees Ferry, but may under different operating scenarios. The current survey is a replication of the single-site design of the original Bishop et al. study. Modification of the sample frame to include potential users as well as current users is well beyond the scope of this project. Additionally, adopting an alternative sampling frame would significantly complicate comparisons to the original study results. This is specifically true with regard to any pre and post-rod comparisons.

14. Should case scenarios for contingent valuation more closely approximate current on-the-water experiences associated with operations?

RESPONSE: As noted for Point 10, once the surveys are finalized and we know the water year conditions we will be sampling under, we will fine-tune the conditions described in the survey to more closely reflect the actual conditions with respect to flow levels and water fluctuations.

15. The sampling strategy for on the water users should ensure that interviewers reach and qualify the walk-in angler, i.e. three types of anglers exist as follows.

- Those that visit the walk-in areas only.
- Those that boat up-river for angling only.
- Those that both visit the walk-in areas and boat up-river for angling purposes.

RESPONSE: As mentioned in our response to Question 9, identifying these separate groups for comparison and contrast is a key study objective.