

National Park Service
U.S. Department of the Interior

Social Science Program



Total Economic Values for the Glen Canyon Dam Long Term Experimental and Monitoring Plan

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EXPERIENCE YOUR AMERICA

What is the study purpose?

- Provide current information about:
 - Values held by the American public for Grand Canyon and Glen Canyon resources
 - Measures to protect those resources
- Data gathered will include information on:
 - Individual characteristics and familiarity with the park and river ecosystems
 - Preferences regarding resource management outcomes

Past communication on this survey

- **February 23, 2012:** SEAHG recommended a list of economic studies including a non-use or passive use study
- **August 15, 2012:** Letter from Reclamation and NPS to TWG stated passive use study would be conducted
- **August 30, 2012:** Studies recommended by SEAHG, including passive use, were discussed in relation to LTEMP

Past communication on this survey

- **September 18, 2013:** Federal Register Notice from NPS for 60 day comment period on the general process of the survey
- **December 3, 2013:** Webinar held for AMWG stakeholders to understand and ask questions about the survey
- **July 9, 2014:** Federal Register Notice from OMB for 30 day comment period on the survey documents

Past communication on this survey

- **August 28, 2014:** Presentation given at AMWG stakeholders meeting on study status
- **November 13, 2014:** Update given on AMWG stakeholders call
- **December 16, 2014:** Update given on AMWG stakeholders call

What will be measured?

- ***Total economic values:***
 - Direct use values derived from physical interaction with resources
 - Fishing, boating, sightseeing, etc.
 - Passive use values derived independently from physical interaction with resources
 - Knowing that resources exist or will be preserved in a given condition

Has this been done before?

- Welsh et al. 1995 “Glen Canyon Dam, Colorado River Storage Project, Arizona: Nonuse Values Study Final Report”
 - Prepared as part of the Glen Canyon Environmental Studies (GCES) effort to explore relationships between dam operations and downstream resources
 - Reviewed by the National Research Council:

“..the nonuse value results are an important contribution of GCES and deserve full attention as decisions are made regarding dam operations.”

National Research Council 1996

What is the study design?

- **Estimation** of total economic values of LTEMP alternatives
 - Methodology: conjoint analysis
 - Respondents are asked their preferences among scenarios with different management **outcomes**
 - River beaches
 - Native fish populations
 - Trout populations
 - Cost
 - Note – for this type of survey, respondents are not given details of EIS alternatives, but are only given information about the resource outcomes

What is the study design?

- The indicated tradeoffs among management outcomes allow the estimation of values for each outcome individually (river beaches, native fish, trout)
- Values of LTEMP alternatives are then estimated by setting outcome levels in the valuation model to match those of respective alternatives and adding their individual values together
- **Note – outcome levels in the survey are set statistically to maximize estimation efficiency – they are intended to represent the range of potential impacts, not actual alternatives**

What is the study design?

- The survey will have two strata:
 - Regional household sample (8 counties surrounding dam and river corridor)
 - National household sample
- A nonresponse bias phone follow up will also be conducted

Survey review process

- Economic peer review
 - John Loomis – Colorado State University
 - Michael Welsh – Stratus Consulting (now with Industrial Economics, Inc)
 - Lynne Koontz – USGS Fort Collins Science Center (now with NPS)

Survey review process

- Agency review
 - NPS information collection review
 - USGS GCMRC factual content review
 - Paul Grams – sediment resources
 - Scott Vanderkooi – aquatic resources
 - Helen Fairley – cultural resources
 - Jack Schmidt – center chief
 - USGS GCMRC survey instrument review
 - Lucas Bair – economist
 - DOI information collection review
 - OMB information collection review (in progress)

Current status and next steps

- OMB comment period
 - OMB requested and received comments on the pilot survey
- Changes made
 - Based on comments, changed survey to indicate that use of bypass tubes impacts hydropower generation
 - Based on OMB comments, dropped one of the two surveys (replication of Welsh et al. 1995)
- Next steps
 - Complete the pilot survey
 - OMB approval of main survey
 - OMB will request comments on the main survey
 - Conduct approved main survey

Current status and next steps

- OMB review information
 - General: <http://reginfo.gov>
 - Specific:
<http://www.reginfo.gov/public/do/PRAOMBHistory?ombControlNumber=1024-0270>
 - Control number: 1024-0270
 - Survey instrument

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Fort Collins, Colorado



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