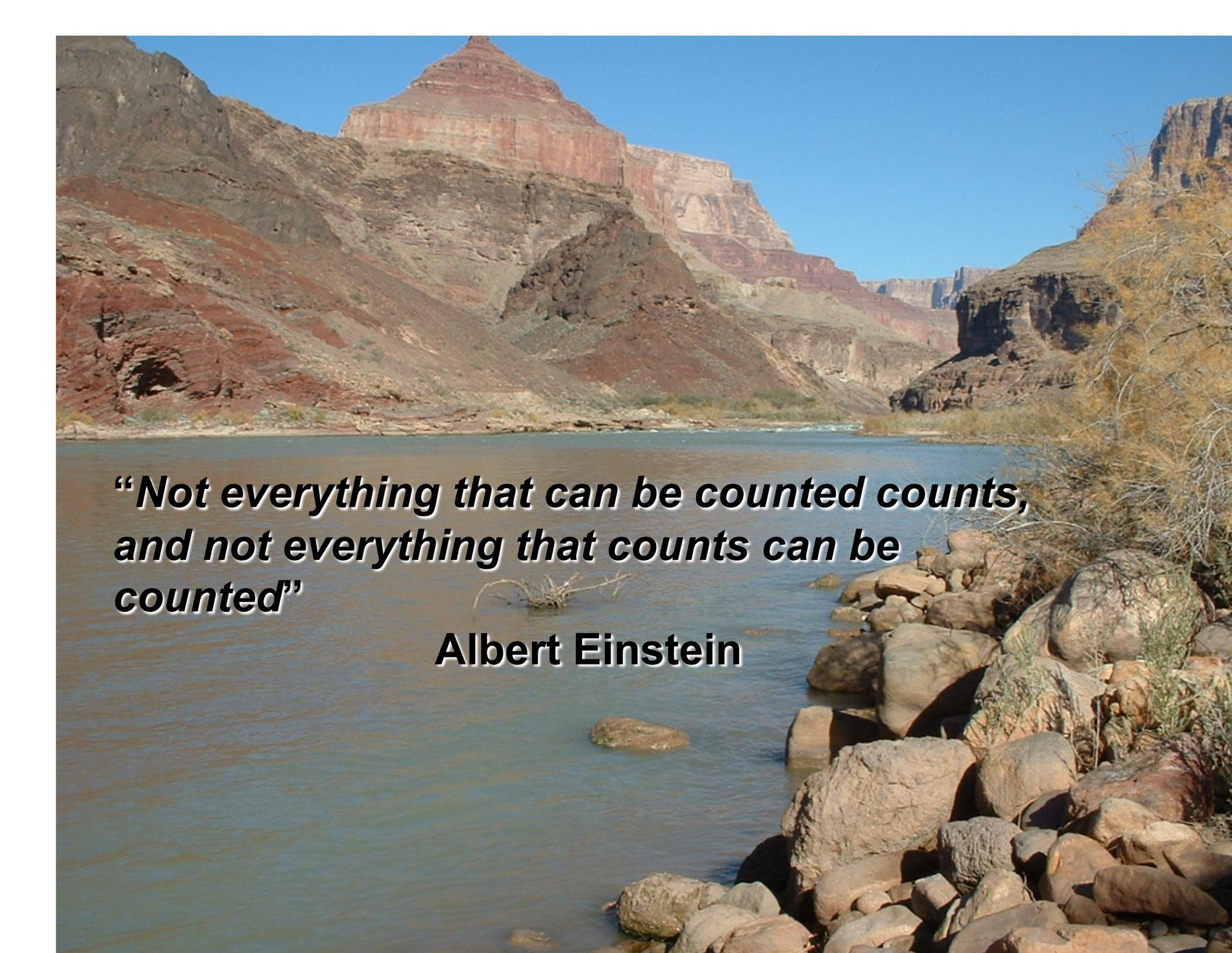




Socioeconomics and the Glen Canyon Dam Adaptive Management Program

Technical Work Group Workshop
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A scenic view of a river flowing through a canyon. The river is in the foreground, with large, smooth, light-colored rocks along its banks. The canyon walls are composed of layered rock formations in shades of red, brown, and grey. The sky is a clear, bright blue. The text is overlaid on the lower left portion of the image.

***“Not everything that can be counted counts,
and not everything that counts can be
counted”***

Albert Einstein

GCPA

- Does not mention “resources” but it speaks about “natural, cultural, and visitor use” values
- These are not market-based commodities - but they are valuable
- GCPA speaks to preserving and “improving” values; how do we measure improvement?



Market vs. Non-Market

- Market resources
 - Traded in established markets, e.g. fuel, food, housing, “goods”
 - Represented by common economic indicators (\$)
 - Gross Domestic Product measures their contribution to economy
- Non Market resources
 - Not traded in established markets, e.g., clean air, wildlife, scenery, archaeological sites
 - Collectively produced and consumed
 - Not represented by common economic indicators; no direct pricing to guide valuation
 - Non market resources have economic value but GDP does not measure their contribution to the economy



Historical Perspective

- All previous independent review panels perceived need for up-to-date robust economic data to inform monitoring and decision-making
- Panels unanimous about need for broad-based economic assessments (market/non-market, use/non-use)
- Almost all GCDAMP economic assessments focus on impacts to hydropower from proposed experimental / management actions
- The only recreation economic assessment conducted for GCDAMP was about LSSF impacts on local recreation (completed in 2003)



2007 Information Needs Workshop

- Conducted in advance of holding a socioeconomic PEP review
- TWG participants chose not to rank socioeconomic INS from different goals
- (Goals 9, 10, 12)
- TWG participants reviewed and revised CMIN for Goal 10 (hydropower)



Management Objective and CMIN Related to Recreation Economics

- **MO Objective 9.1** Maintain or improve the quality and range of recreational opportunities in Glen and Grand Canyons within the capacity of the Colorado River ecosystem to absorb visitor impacts consistent with the NPS and tribal river corridor Management Plans.
- **CMINI 9.1.4** Determine and track the economic benefits of river related recreational opportunities.



Management Objective and CMIN Related to Hydropower

- **Objective 10.1** Maintain or increase power with respect to marketable capacity and energy at Glen Canyon Dam.
- **CMIN 10.1.1** Determine and track the marketable capacity and energy produced through dam operations in relation to the various release scenarios (daily fluctuation limit, up ramp and down ramp limits, maximum flow limit of 25,000 cfs, minimum flow limit of 5,000 cfs.)



Management Objective and Research INs Related to Socioeconomics

MO 12.1 Maintain or attain socio-economic data for adequate decision-making.

12.1.1 What is the economic value of the recreation use of the Colorado River ecosystem downstream from Glen Canyon Dam?

12.1.2 What are the use (e.g., hydropower, trout fishing, rafting) and non-use (e.g., option, vicarious, quasi-option, bequest, and existence) values of the Colorado River ecosystem?

12.1.3 How do use (e.g., hydropower, trout fishing, rafting) and non-use (e.g., option, vicarious, quasi-option, bequest, and existence) values change in response to an experiment performed under the Record of Decision, unanticipated event, or other management action?



Workshop Purpose

- To discuss and clarify needs for socioeconomic information and potential approaches for obtaining it in the foreseeable future
- To learn what has been done and what could be done to help inform future AMP decision making, e.g., what information has been or could be developed to properly assess impacts or evaluate trade-off options?
- To learn from each other and decide:
 - What can we agree to accomplish over the next 3-5 years (Phase I work)?
 - What is needed over the longer term and how do we get there?

Socioeconomic Workshop Format

- **Part 1: Presentations by subject experts**
Discuss past project results and relevant recent work
- **Part 2: Facilitated discussion with TWG**
Clarify AMP socioeconomic information needs
- **Part 3: Independent panel summary**
Panelists review what was heard, clarify stakeholder info needs, recommend next steps and approaches

An aerial photograph of a dam with four large spillways. The water is cascading down the spillways, creating white foam. The dam structure is concrete and has several blue electrical boxes on top. In the background, there is a road, a staircase, and a building with a corrugated metal roof. The surrounding landscape is rocky and brownish.

Questions?