Flows and Recreation in Glen Canyon & Grand Canyon

Findings from the Recreation PEP
Presentation Agenda

Introduction
Recreation PEP Methods
General findings
Conceptual model
Recommendations by management objective
  • Visitor and wilderness experience
  • Visitor safety
  • Beaches and and camping
  • Visitor – research interaction
Introduction
Long term monitoring shall include necessary research & studies on natural, recreational & cultural resources of Grand Canyon NP & Glen Canyon National Recreation Area...includes natural & cultural resources, and visitor use.
Recreation Use = Major Industry

180,000 user-days in Grand Canyon

40,000 day use rafters in Glen Canyon

20,000 angler-days in Glen Canyon

$40 million annual economic benefits

600 jobs in Northern Arizona
Dam operations affect...
Boatability and access to fishing in Glen Canyon
Size, frequency & quality of beaches
Challenge and safety of rapids
Rate of travel and “discretionary time”
Encounters & crowding
Recreation PEP and Methods
PEP Objectives and Format

General Recommendations Regarding
• Implementing the Legal mandate
• AMWG recreation objectives
• GCMRC recreation program

Specific Recommendations
• Conceptual model to guide monitoring
• For each AMWG recreation management objective
PEP Methods:
Select presenters & Panel
14-day trip in Grand Canyon
Review recreation research and monitoring needs
Review Literature to date
Presenters and logistics
General Recommendations
Goal:
“Improve/maintain recreation experience quality”

Objectives:

9.1 Visitor experience
9.2 Visitor safety
9.3 Beaches and campsites
9.4 Wilderness experiences
9.5 Maintain visitor experiences affected by GCMRC monitoring activities

PEP concludes these are appropriate objectives but...
Assessment of Current Recreation Monitoring Program

• Current Monitoring is not comprehensive:
  e.g., Less on Glen Canyon, Grand Canyon attraction sites
• Not regular or concurrent with flow experiments
• Small proportion of $7m GCMRC budget
• Despite this…consistent progress on:
  Monitoring camping beach size
  GCMRC research impacts on visitor experiences
• However…less consistent progress on:
  Visitor experience
  Visitor safety
  Wilderness experience
To Improve Recreation Monitoring…

1. Increase recreation expertise & representation
   • GCMRC
   • TWG
   • SAB

2. Fund recreation commensurate with…
   • Importance of recreation
   • Funding of other resources

3. Use conceptual model to guide monitoring
1. Management actions From BuRec, NPS, & AZGF
2. Unique Characteristics of Glen and Grand Canyon
3. Recreation Conditions: Physical, Biological, Social, and Managerial
4. Trip Attributes: rapids, safety, encounters, rate of travel
Conceptual Model to Guide Monitoring

1. Management actions
   From BuRec, NPS, & AZGF

2. Unique Characteristics of Glen and Grand Canyon

3. Recreation Conditions:
   Physical, Biological, Social, and Managerial

4. Trip Attributes

5. Visitor Evaluations of Conditions and Attributes

6. Recreational Experiences

7. Visitor Evaluations of Experiences
Specific Recommendations for Management Objectives
9.1/9.4 Visitor and Wilderness Experience

Understand: flows → attributes → experiences
  e.g., size/number of rapids, encounters, “discretionary time”
  Use this relationship to focus monitoring on attributes

Determine economic benefits of attributes
  Use conceptual model & survey data to understand tradeoffs
  between trip attributes and their economic value to visitors

Other specific information needs
  Can agency information mitigate sub-optimal flows/experiments?
  Understand effects flow on the benefits & impacts of
  “discretionary time”
  Effects of use, encounters, and other social impacts on solitude
  Deeper understanding of experiences & dam-influenced attributes
  Recreation impacts at camps, day use, and attraction sites
9.2 Visitor Safety

Continue NPS flow-accident reporting system

Continue NPS shore observation program
    Establish baseline...monitor during experiments

Provide flow change information to visitors
    Monitor if visitors use info; evaluations of information

Improve flow → incident/accident reporting

Routine safety/health monitoring in Glen Canyon

Do high flows improve beach sanitary conditions?
9.3 Beaches and Camps

Campsite atlas: Inventory current/past campsites
  Physical characteristics: Location, size, shade, boat mooring, etc.
  Visitor evaluations: Capacities, links to trip schedules/needs

Campsite trend monitoring
  Continue GCMRC campsite/beach monitoring
  More sophistication: multiple slope criteria, systematic and representative sampling
  Integrate social capacity evaluations
    Emphasize sampling & evaluations in critical/limiting reaches

Research needs:
  Beach size / other attributes and social capacity
  Visitor evaluations of camp attribute trade-offs
9.5 Visitor Experience & GCMRC Monitoring

Improve research permitting
Minimize research trips in peak recreation season & minimize competing with visitors for prime camping & stops

Improve communication about research
Press releases, launch information, etc.

Research: evaluate research-visitor interaction
Thanks for the invitation...

-- Recreation PEP Participants
Questions?

Photos by Doug Whittaker, Bo Shelby & Neil Moisey