<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Recreation Protocol Evaluation Panel (PEP)</th>
</tr>
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<tbody>
<tr>
<td>Action Requested</td>
<td>Information item only; we will answer questions but no action is requested.</td>
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<tr>
<td>Presenters</td>
<td>Helen Fairley, Cultural Program Manager, Grand Canyon Monitoring and Research Center</td>
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<td>Previous Action Taken</td>
<td>By AMWG: AMWG approved funding for this PEP in FY04; project was deferred with AMWG approval to FY05.</td>
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<td>By TWG: TWG reviewed the report and received an oral briefing from Panel chairperson, Dr. John Loomis, at the November 29, 2005 TWG meeting.</td>
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<td>Relevant Science</td>
<td>The Recreation PEP reviewed all prior GCMRC sponsored recreation-related research and monitoring as well as recent recreation research and monitoring by NPS-GRCA.</td>
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<td>Background Information</td>
<td>I have attached the background information to be included in the AMWG packet that is distributed 30 days before the meeting, and posted on the website.</td>
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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 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.
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
Fishability
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
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
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