

Public Scoping Meetings

November 2011

Glen Canyon Dam Long-Term Experimental and Management Plan Environmental Impact Statement (LTEMP EIS)

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Glen Canyon Dam

Long-Term Experimental and Management Plan EIS



Purpose of This Presentation

- Explain the context and background of Glen Canyon Dam operations and the National Park resources downstream
- Explain the need for a long-term experimental and management plan and this EIS
- Explain the NEPA process and the scoping portion of that process
- Solicit written public comments on the scope of the EIS as well as answer questions about the process at the poster stations

Glen Canyon Dam

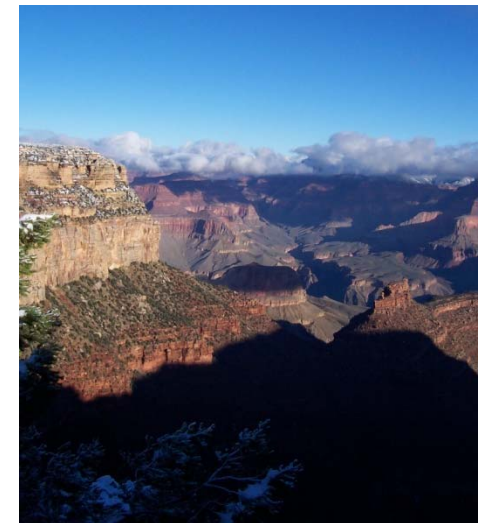
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Joint Lead Process



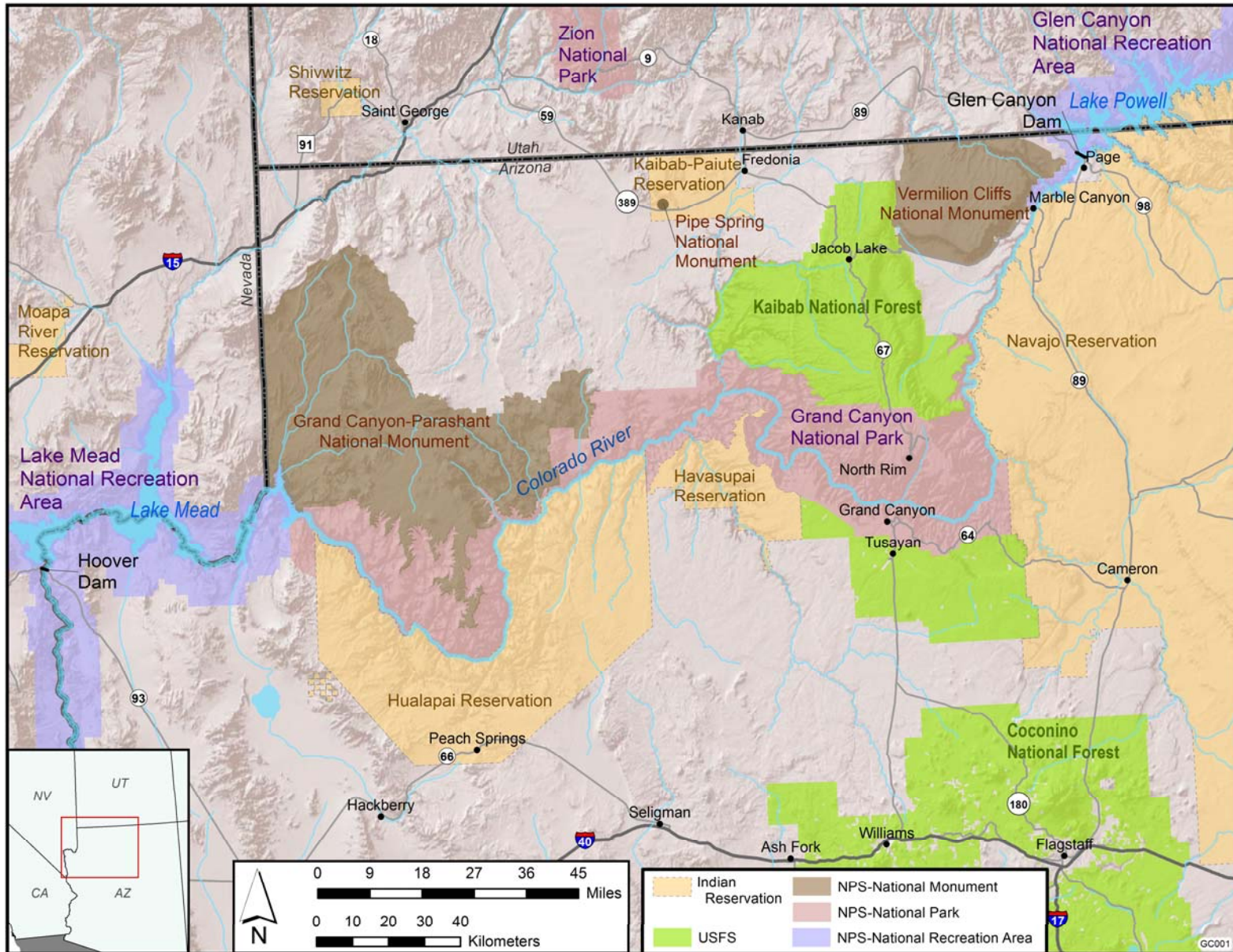
- Bureau of Reclamation has primary responsibility for the operation of Glen Canyon Dam
- The National Park Service has primary responsibility for managing the Grand Canyon National Park and Glen Canyon and Lake Mead National Recreation Areas
- There will also be a number of cooperating agencies and consultations, including tribal consultation





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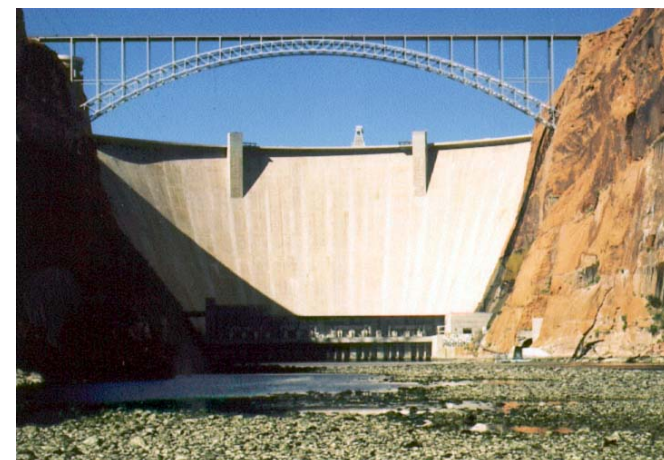
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Glen Canyon Dam

- Dam closure in 1963 (Lake Powell begins to fill); primary purposes are water storage and flood control
- Glen Canyon Dam power plant has a maximum capacity of 1,320 MW, and on average generates enough energy to supply about 425,000 households for a year
- Water storage capacity of Lake Powell is 26.2 million acre-feet
- Second highest concrete-arch dam in the United States at 710 feet



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National Parks

- Below Glen Canyon Dam, the Colorado River flows through:
 - 15 miles of Glen Canyon National Recreation Area
 - 277 miles of Grand Canyon National Park
- All water released from Lake Powell flows into Lake Mead in Lake Mead National Recreation Area
- Annual visitation figures for 2010 were:
 - Grand Canyon: 4.4 million
 - Glen Canyon: 2.1 million
 - Lake Mead: 7.0 million



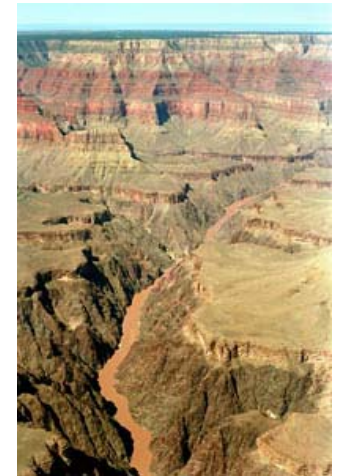
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Grand Canyon National Park

- The Grand Canyon has many special designations including:
 - World Heritage Site
 - Several National Historic Landmarks and Districts
 - Portion of the Arizona National Scenic Trail
 - Proposed Wilderness on 94% of the park
- Supports 9 federally listed endangered or threatened species and many species of concern or with state protection status
- Includes more than 4,300 recorded archaeological sites
- Second most visited park in the NPS system and is important to the regional economy with estimated regional spending of \$338 million by park visitors in 2003



The Grand Canyon



Humpback Chub



Archeological resources

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Grand Canyon Protection Act (1992)

- Requires the operation of Glen Canyon Dam in a manner to:
 - Protect, mitigate adverse impacts to, and improve the values for which the Grand Canyon National Park and Glen Canyon National Recreation Area were established including natural and cultural resources and visitor use
 - Comply with water delivery laws and requirements
- Requires long-term scientific monitoring and research





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1995 EIS and 1996 ROD

- The 1995 Final EIS was the last comprehensive EIS for Glen Canyon Dam operations.
- The 1996 Record of Decision specified a regime of Modified Low Fluctuating Flows (MLFF).
- The MLFF specifies dam operational constraints:
Flow min/max (cfs): 5,000 to 25,000
Ramp rates (cfs/hr): Ascending: 4,000
Descending: 1,500
Daily fluctuations (cfs): 5,000 to 8,000
- There are exceptions for emergencies and extreme conditions



Why a New Plan?

- To utilize the past 15 years of scientific information gathered on Glen Canyon Dam operations
- To comply with ongoing requirements and to protect natural and cultural resources in compliance with the Grand Canyon Protection Act
- See the “Need” Statement on the posters



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Experimentation Since 1996

- 1996 Beach/Habitat-Building Flow (BHBF) test
- 2000 Low Steady Flow test
- 2002-2006 Translocation of humpback chub and removal of non-native fish
- 2004 Beach/Habitat-Building Flow test
- 2003 to 2005 research and monitoring of aquatic resources under drought conditions
- 2008 High-Flow Experiment (HFE)



Sand Deposition & Erosion at Lower Tapeats Camp

Pre-dam



Pre-HFE experiment



Post-HFE experiment



2 Years After HFE



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What is Scoping?

- Scoping is an opportunity for you to share your ideas early in the process.
- We are particularly interested in your input on:
 - The resources or issues to be evaluated in the LTEMP EIS
 - The alternatives to be included in the LTEMP EIS
 - Concerns or observations regarding Glen Canyon Dam operations and downstream resources.
- Public scoping runs through December 30, 2011. You can provide comments at any time during this period.



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The National Environmental Policy Act (NEPA)

- Passed in 1969 and called the “foundation of modern American environmental protection” (CEQ 1997)
- Is a legal requirement for federal agencies, but is better described as an environmental planning process
- Has requirements for analysis and public review for federal decision making processes





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Elements of the NEPA Planning Process

- Articulate the purpose, need, and objectives
- Identify potentially significant issues
- Look at all reasonable alternatives, including No Action
- Analyze impacts using reliable scientific data and a problem-solving approach



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Purpose, Need and Objectives

- See the full text of the “purpose” and “need” statements and the objectives on the posters
- The public may provide comment on these as part of public scoping



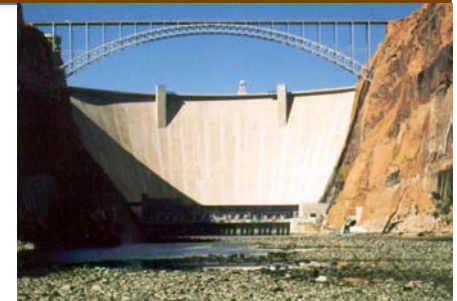
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Preliminary List of Considerations

- Recreation (fishing, rafting, camping, etc.)
- Hydroelectric power production
- Hydrology and water delivery
- Sediment (deposition/erosion)
- Historic properties
- Tribal perspectives
- Wilderness
- Riparian and terrestrial ecology
- Aquatic ecology (non-native fish, threatened, endangered, and extirpated species)





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Alternatives

- Specific alternatives for the LTEMP EIS have not yet been developed
- The public is encouraged to suggest alternatives during scoping
- Alternatives are different ways to solve the problems identified in the purpose and need
- A “No Action” alternative must always be included and the benefits or impacts of other alternatives will be compared to the “No Action” alternative

Alternatives Must Be Reasonable

- Technically feasible
- Economically feasible
- Display common sense
- Meet the objectives of taking action
- Not necessarily the cheapest or easiest solution





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How to Provide Comments during Public Scoping

- Comments will be accepted tonight on the computers or on comment cards
- Or you can submit comments before December 30, 2011
- The preferred method is to submit comments through the web at **<http://ltempeis.anl.gov>**
- You may also mail comments to:

Glen Canyon Dam LTEMP EIS Scoping
Argonne National Laboratory
9700 S. Cass Ave. – EVS/240
Argonne, IL 60439



Public Scoping Meetings

November 2011

Questions will be answered
at the poster stations

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