

# RECLAMATION

*Managing Water in the West*

**Draft Environmental Impact Statement  
Colorado River Interim Guidelines for  
Lower Basin Shortages and Coordinated  
Operations for Lake Powell and Lake Mead**

**Public Hearings  
April 2007**



U.S. Department of the Interior  
Bureau of Reclamation

# Agenda



- Welcome
- Overview of Meeting
- Draft EIS
- Question and Answer Session
- Comment Period

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# Overview of Meeting

- Purpose – listen to and receive your comments and information on the Draft EIS
  - Court Reporter (one speaker at time and identify yourself)
  - Comment Cards
- Meeting Structure
  - Project Presentation
  - Open Question and Answer Session
  - Comment Period
    - complete a Speaker Card
    - limit of 5 minutes per speaker

# Draft EIS

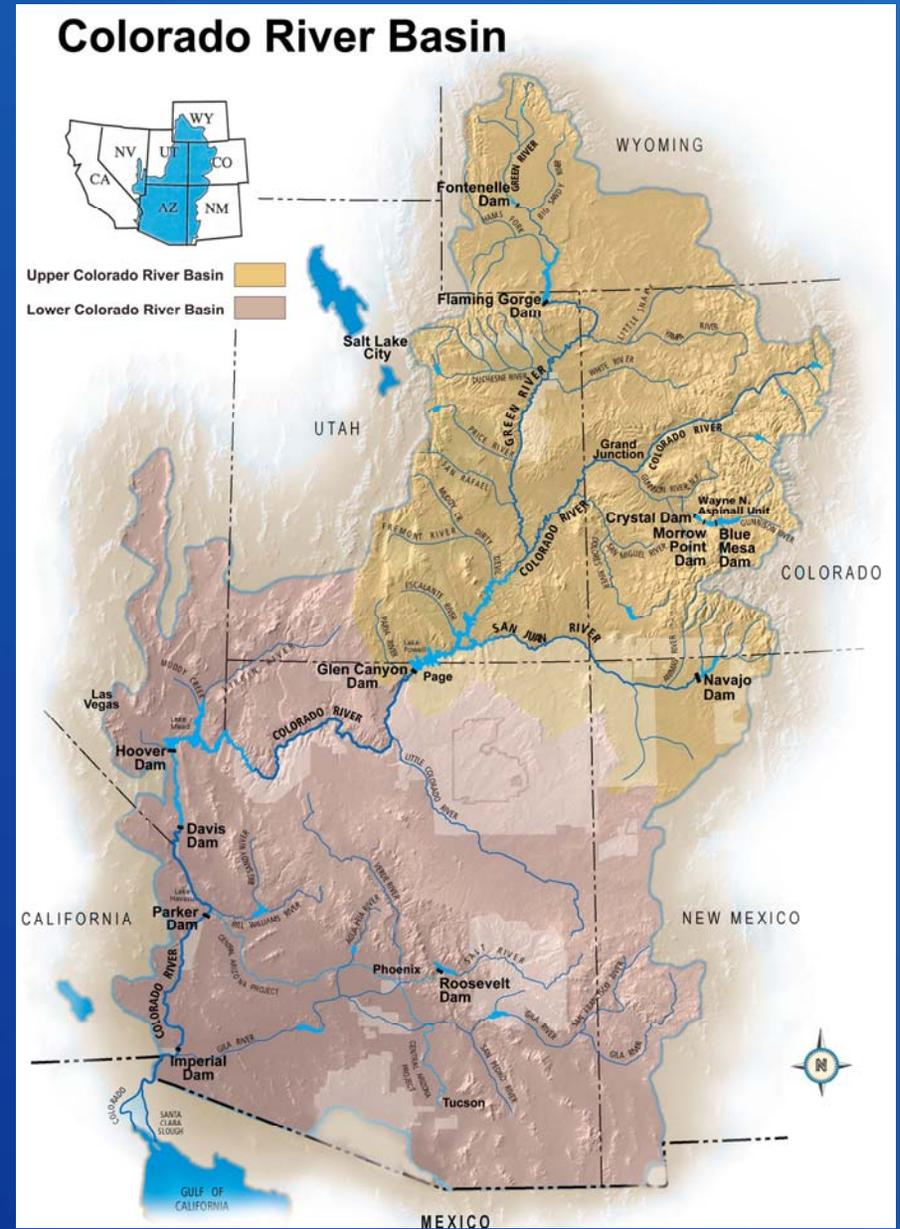


- Project Background
- Consultation and Coordination
- Alternatives Studied
- Geographic Scope and Resources Analyzed
- Project Schedule
- Next Steps

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# Colorado River Basin Hydrology

- 16.5 million acre-feet (maf) allocated annually
- 13 to 14.5 maf of consumptive use annually
- 60 maf of storage
- 15.03 maf average annual “natural” inflow into Lake Powell over past 100 years
- Inflows are highly variable year-to-year



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# Project Setting

Lake Mead Delta - 1999



Lake Mead Delta - 2006



- Seven years of unprecedented drought
- Increased water use
- Increased tension among the Basin States
- To date, there has never been a shortage in the Lower Basin and there are currently no shortage guidelines
- Operations between Lake Powell and Lake Mead are currently coordinated only at the higher reservoir levels (“equalization”)

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# Project Background

- In 2004 - the Secretary challenged the Basin States to develop a drought mitigation plan for the Colorado River Basin
- May 2005 – Secretary tasked states to come up with a consensus plan and publicly committed to developing guidelines with or without state consensus
- Fall 2005 - Announced intent to initiate NEPA process, solicited public comments on scope and alternatives development
- March 2006 – Issued Federal Register Notice of Scoping Summary Report and refinement of scope
- June 2006 – Published draft alternatives

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# Key Considerations

## (Identified through Scoping Process)

- Importance of encouraging conservation of water
- Importance of considering reservoir operations at all operational levels
- Guidelines for an interim period (assumed to be 2008 through 2026)

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# Proposed Federal Action

- Key Elements:
  - Shortage strategy for Lake Mead and the Lower Division states
  - Coordinated operation of Lakes Powell and Mead
  - Mechanism for the storage and delivery of conserved system and non-system water in Lake Mead
  - Modification/extension of the existing Interim Surplus Guidelines

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# Consultation and Coordination

- Cooperating Agencies (Western Area Power Administration, National Park Service, Bureau of Indian Affairs, Fish and Wildlife Service, and U.S. Section of International Boundary and Water Commission)
- Basin States
- Tribes
- Consortium of environmental organizations (Environmental Defense, Pacific Institute, Sonoran Institute, Nature Conservancy, National Wildlife Federation, Defenders of Wildlife)
- Mexico
- General Public

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# Alternatives Analyzed in the Draft EIS

- Alternatives
  - No Action Alternative
  - Basin States Alternative
  - Conservation Before Shortage Alternative
  - Water Supply Alternative
  - Reservoir Storage Alternative
- No preferred alternative is identified in the Draft EIS and will be identified after the public comment period

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# No Action

- Secretary of the Interior, through the Annual Operating Plan, makes several annual determinations including:
  - Water supply condition in the Lower Basin (Normal, Surplus, Shortage)
  - Annual release from Lake Powell
- Some guidelines in place, e.g., Interim Surplus Guidelines (ISG)
- Additional guidelines needed, e.g., Shortage
- An annual determination absent additional guidelines is “No Action”
  - Difficult to predict outcome in any given year

# No Action Alternative

- A reasonable representation of future conditions under No Action; not a statement with regard to future policy
- Consistent with previous modeling assumptions used for NEPA and ESA compliance studies
- Key Elements:
  - A “two-tiered” shortage strategy that protects power generation at Hoover Dam with approximately 80% assurance and protects Mead elevation 1000 ft absolutely
  - Current coordinated management at Lake Powell (8.23 MAF release unless storage equalization required)
  - No mechanism for the storage and delivery of conserved water
  - Existing ISG remain in effect through 2016

# Basin States Alternative

- Developed by the Basin States to minimize shortages to the Lower Division states and avoid risk of curtailment in the Upper Basin
- Key Elements:
  - A shortage strategy tied to Lake Mead elevations (400, 500, 600 KAF at elevations 1075, 1050, and 1025 feet)
  - Release from Lake Powell determined by storage of Powell and Mead
  - Mechanism for storage and delivery of conserved system and non-system water (Intentionally Created Surplus or ICS)
  - ISG modified and extended through 2026

# Conservation Before Shortage Alternative

- Developed by consortium of environmental groups to minimize shortages to the Lower Basin through voluntary conservation
- Key Elements:
  - Absolute protection of Mead elevation 1000 feet
  - Coordinated management, same as Basin States proposal
  - Conservation tied to Lake Mead elevations (400, 500, 600 kaf at elevations 1075, 1050, and 1025 feet)
    - Water for environmental uses
    - Expanded mechanism for storage and delivery of conserved water
  - ISG modification and extension, same as Basin States proposal

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# Water Supply Alternative

- Developed through consultation process to maximize water delivery at the expense of retaining water in storage
- Key Elements:
  - No shortage strategy for the Lower Division states; shortages are imposed only when storage is not sufficient to meet full entitlements
  - Lake Powell and Lake Mead share water (“balance” content) when either lake is relatively low
  - No mechanism for the storage and delivery of conserved water
  - Existing ISG extended through 2026

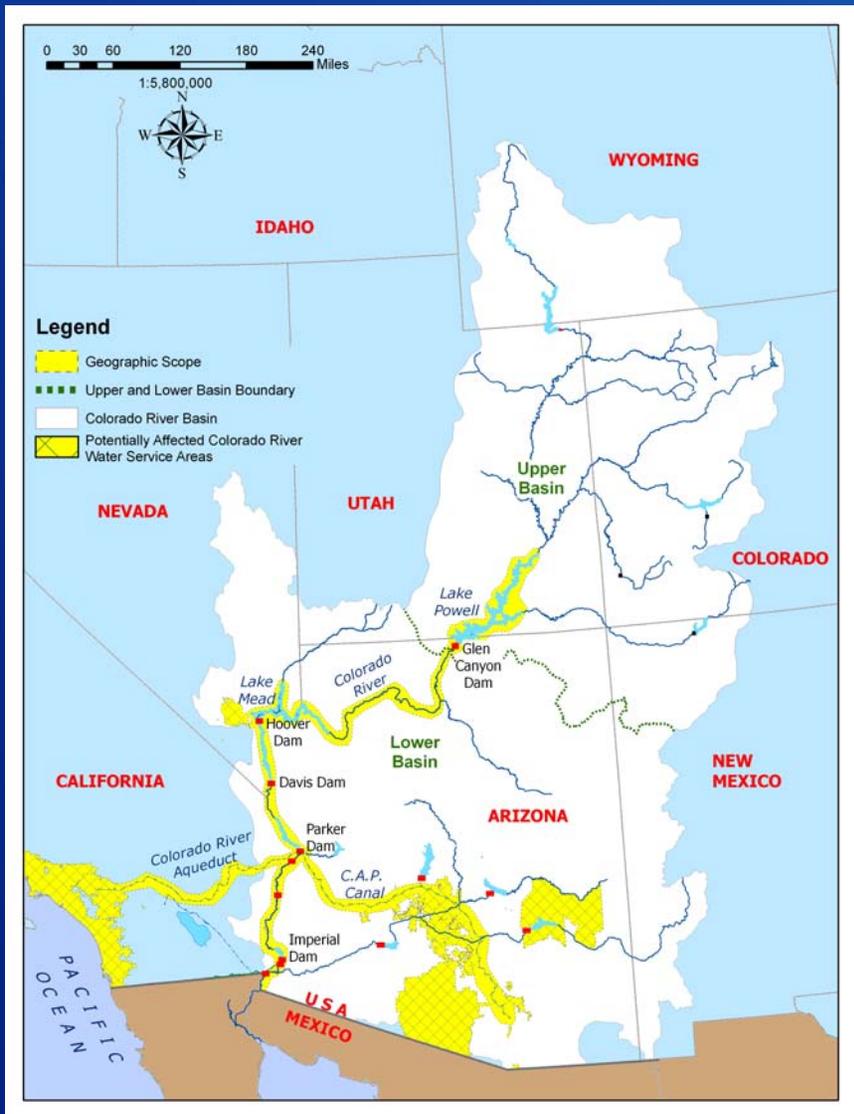
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# Reservoir Storage Alternative

- Developed in cooperation with National Park Service and Western Area Power Administration to maximize water retained in storage by reducing water deliveries and increasing shortages to benefit power and recreational interests
- Key Elements:
  - A shortage strategy tied to Lake Mead elevations (600, 800, 1000, and 1200 kaf at elevations 1100, 1075, 1050, and 1025 feet)
  - Release from Lake Powell determined by storage of Powell and Mead (more water kept in Powell than with Basin States proposal)
  - Expanded mechanism for storage and delivery of conserved water
  - Existing ISG terminated after 2007

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# Geographic Scope



- River Corridor from Lake Powell to SIB
- Affected service areas of water users
  - Arizona – lower priority water users along river and CAP users
  - California - MWD service area
  - Nevada - SNWA service area

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# Resources Analyzed

- Hydrologic
- Water Deliveries
- Water Quality
- Air Quality
- Visual
- Biological
- Cultural
- Indian Trust Assets
- Electrical Power Generation
- Recreation
- Transportation
- Socioeconomics and Land Uses (includes Agriculture and Irrigation)
- Environmental Justice (includes Population and Housing)

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# Project Schedule

- ✓ Summer 2005
  - Solicited public comments on proposed content, format, mechanisms and analysis
- ✓ Fall 2005
  - Announced intent to initiate NEPA process, solicited public comments on scope and alternatives development
- ✓ March 2006
  - Published Scoping Summary Report
- ✓ June 2006
  - Published the proposed alternatives
- ✓ February 2007
  - Published Draft EIS on February 28<sup>th</sup>

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# Next Steps

- March - April 2007
  - Accept Public Comments through April 30<sup>th</sup>
  - Feedback will inform development of a preferred alternative
- May - June 2007
  - Identify and Publicize a Preferred Alternative
- September 2007
  - Publish Final EIS
- December 2007
  - Publish Record of Decision

# Question and Answer Session

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# Comment Period

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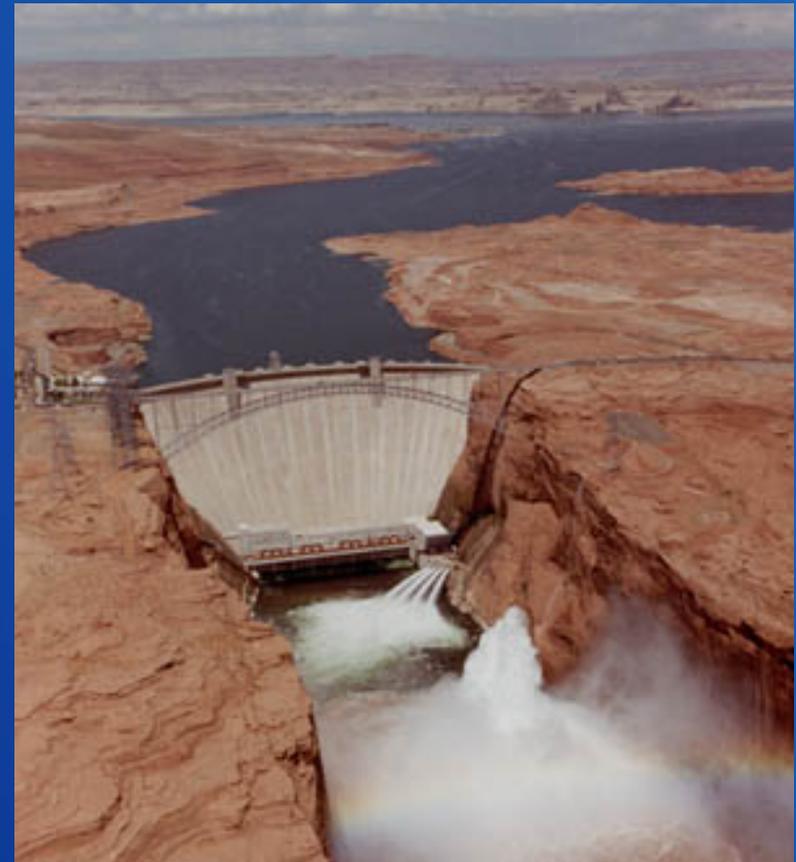
# Comments

- Submit by mail, fax or email
- Monday, April 30, 2007, close of business

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An aerial photograph of a large dam and reservoir. The dam is a curved concrete structure in the foreground, with several spillways. The reservoir is a deep blue-green color, filling a valley between dark, rocky mountains. The sky is clear and blue.

# Shortage Guidelines and Coordinated Operations EIS

Terry Fulp, Project Manager  
Lower Colorado Region

Randy Peterson, Project Manager  
Upper Colorado Region

Project website:  
<http://www.usbr.gov/lc/region/programs/strategies.html>

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