

# RECLAMATION

*Managing Water in the West*

## **Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead Update**

**Colorado River Citizens' Forum  
El Centro, CA  
August 20, 2007**



**U.S. Department of the Interior  
Bureau of Reclamation**

# Agenda

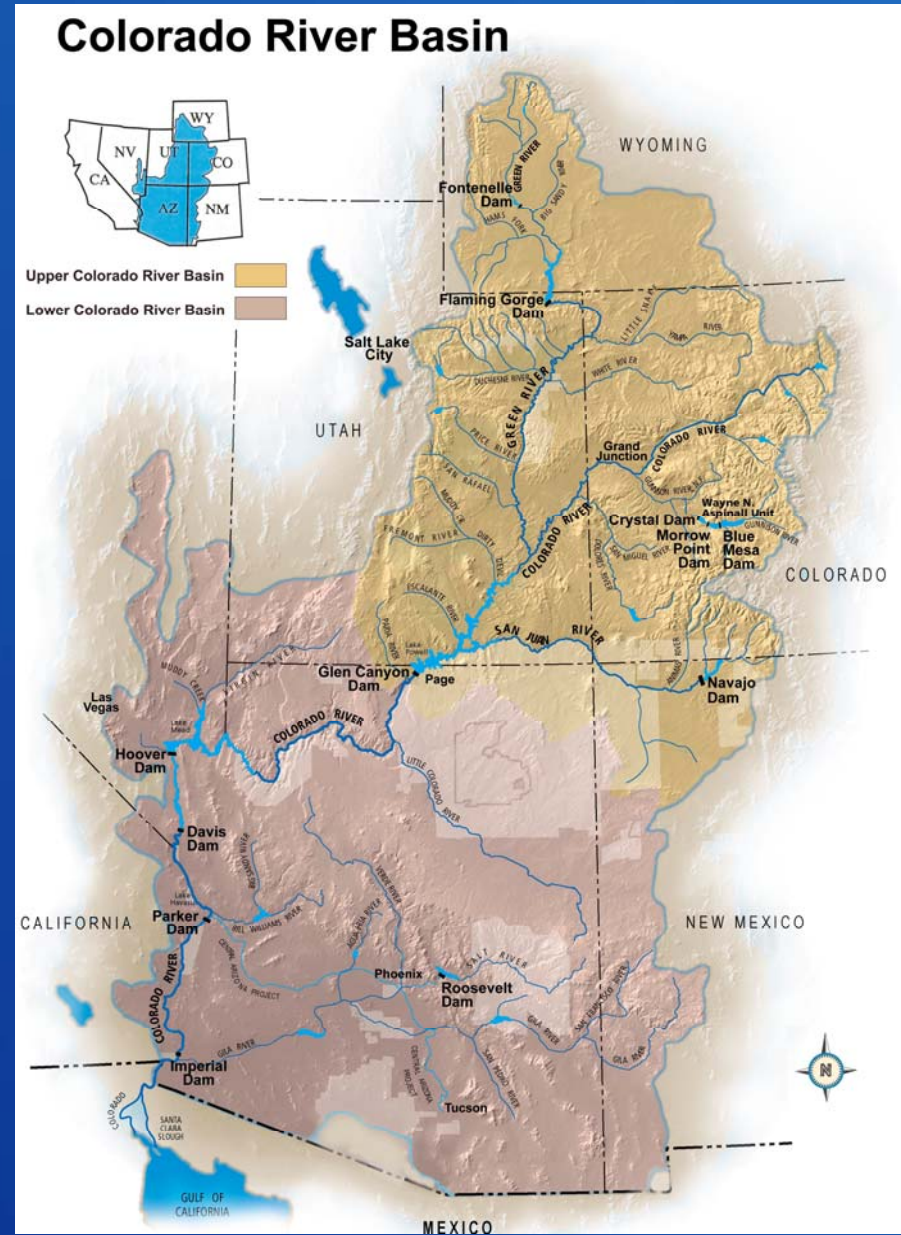


- Overview of the Basin
- Need for Additional Operational Guidelines
- Key Considerations
- Geographic Scope
- Alternatives
- DEIS Comments
- Preferred Alternative
- Schedule

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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
- 15.1 maf average annual “natural” inflow into Lake Powell over past 100 years
- Inflows are highly variable year-to-year

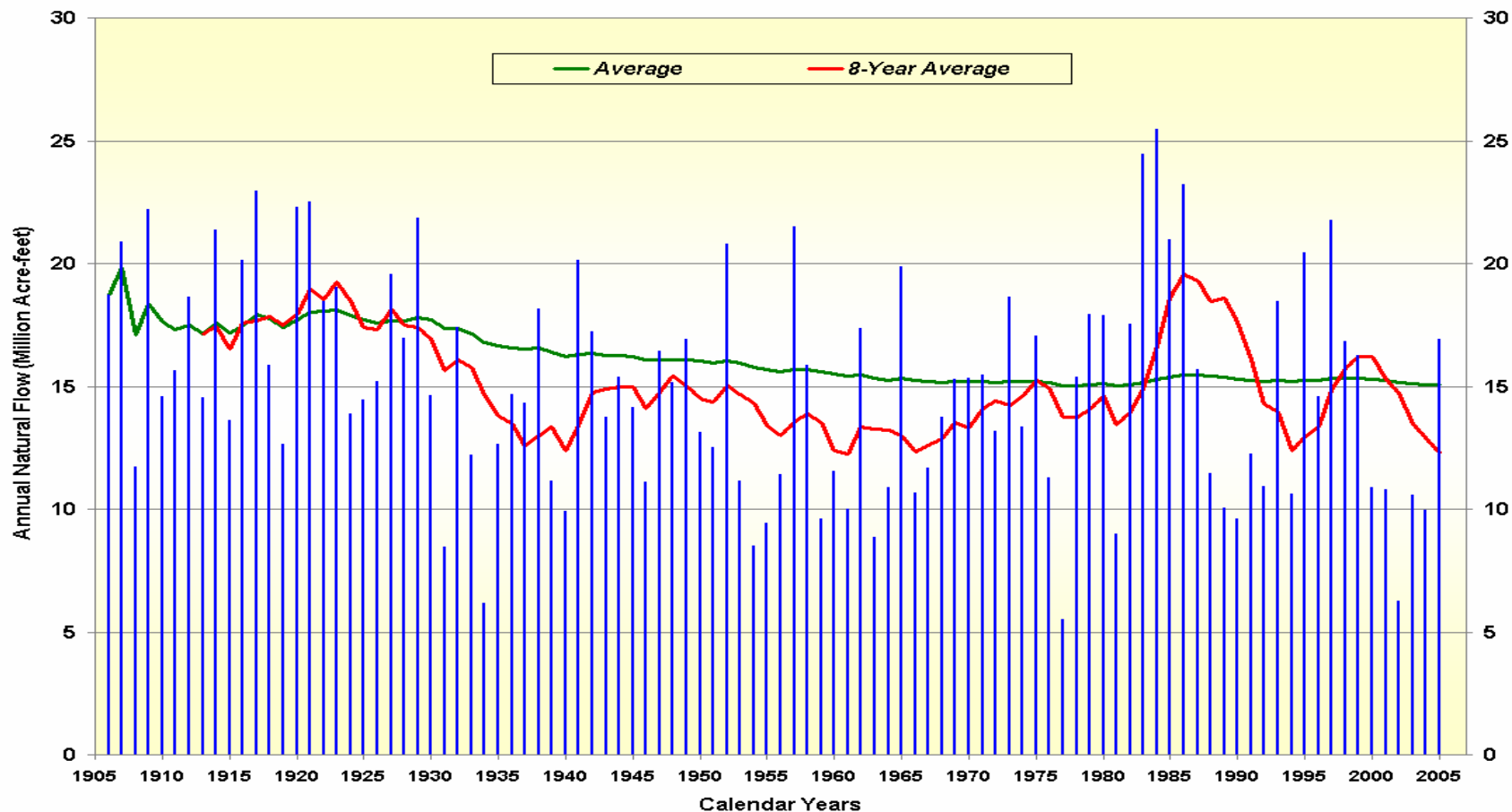


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# Natural Flow

## Colorado River at Lees Ferry Gaging Station, Arizona

### Calendar Year 1906 to 2005



*Provisional data, subject to change*

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# Drought Conditions

- 2000-2007 was the driest 8-year period in the 100-year historical record
- Not unusual to have a few years of above average inflow during longer-term droughts (e.g., the 1950's)
- Current 2007 April through July runoff forecast 51% of average

# 2007 Upper Colorado Projected Apr–Jul Inflow

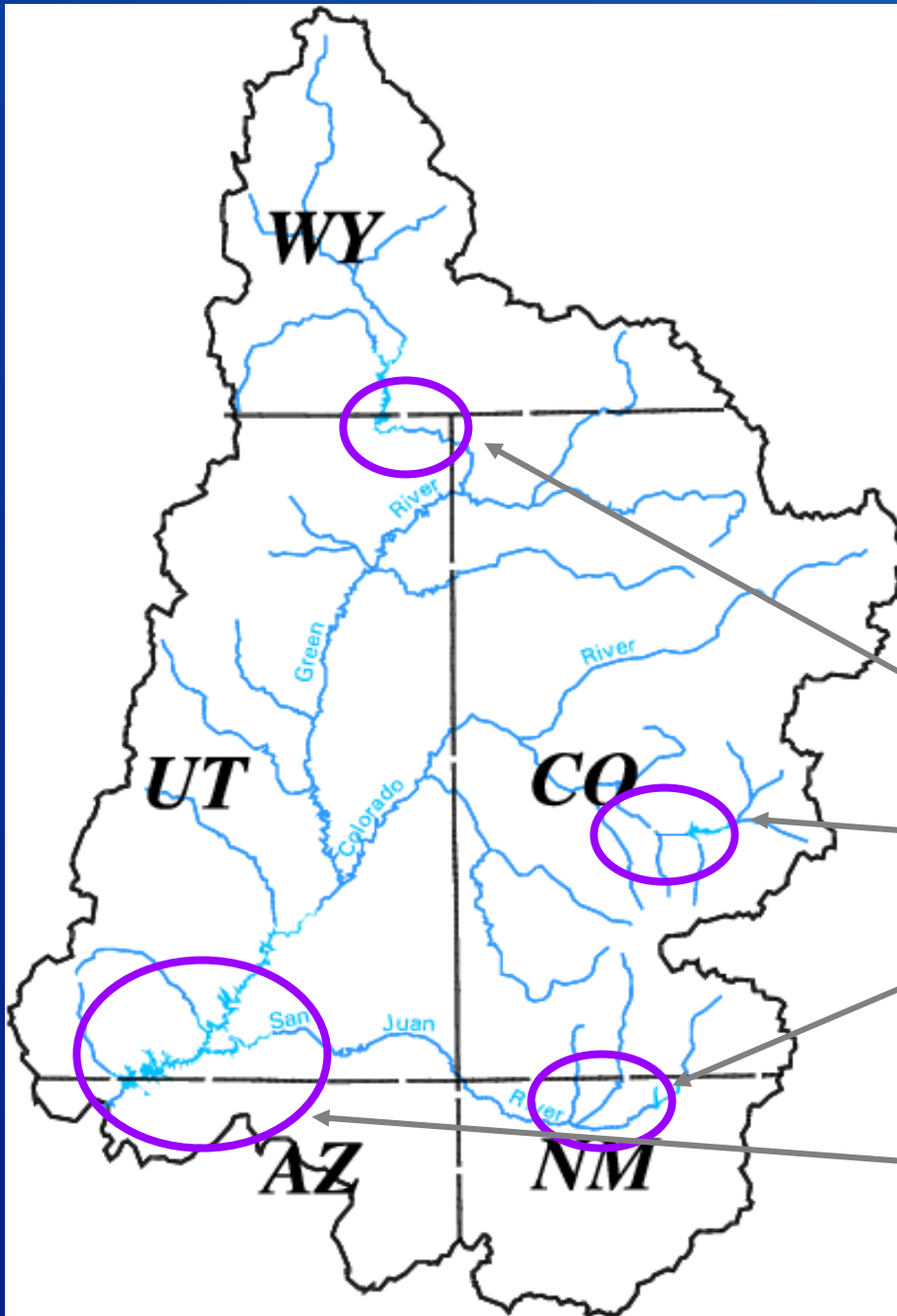
based on July 2007 Mid-Month  
Inflow Forecast

Flaming Gorge – 31%

Blue Mesa – 68 %

Navajo – 74 %

Lake Powell – 51 %



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# Need for Additional Guidelines

**Lake Mead Delta - 1999**

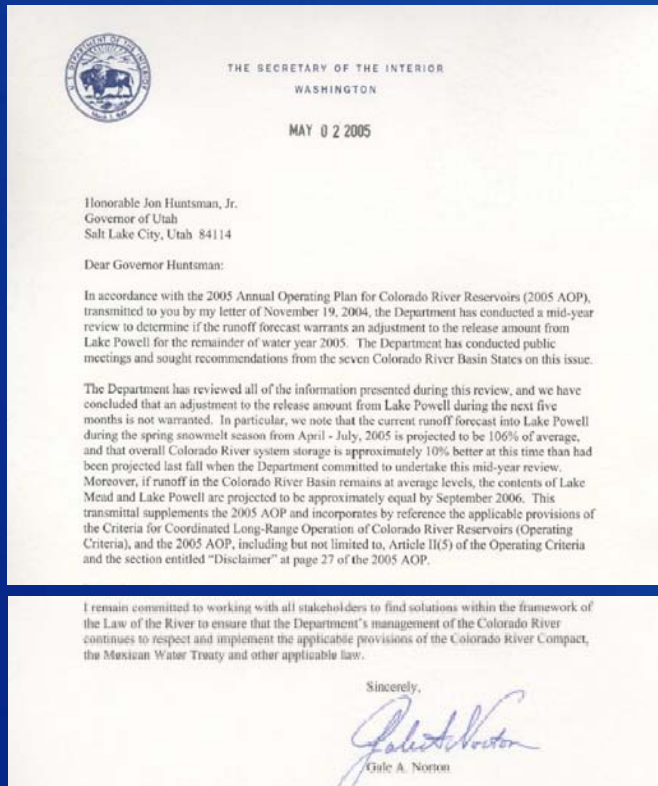


**Lake Mead Delta - 2006**



- Eight 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”)

# Secretary's Decision May 2005



- Did not adjust Lake Powell's release for WY 2005
- Affirmed authority to adjust Lake Powell releases
- Tasked states to come up with a consensus plan
- Directed that guidelines be completed by December 2007
- NEPA process begun in September, 2005

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# Key Considerations

## (Identified through Scoping Process)

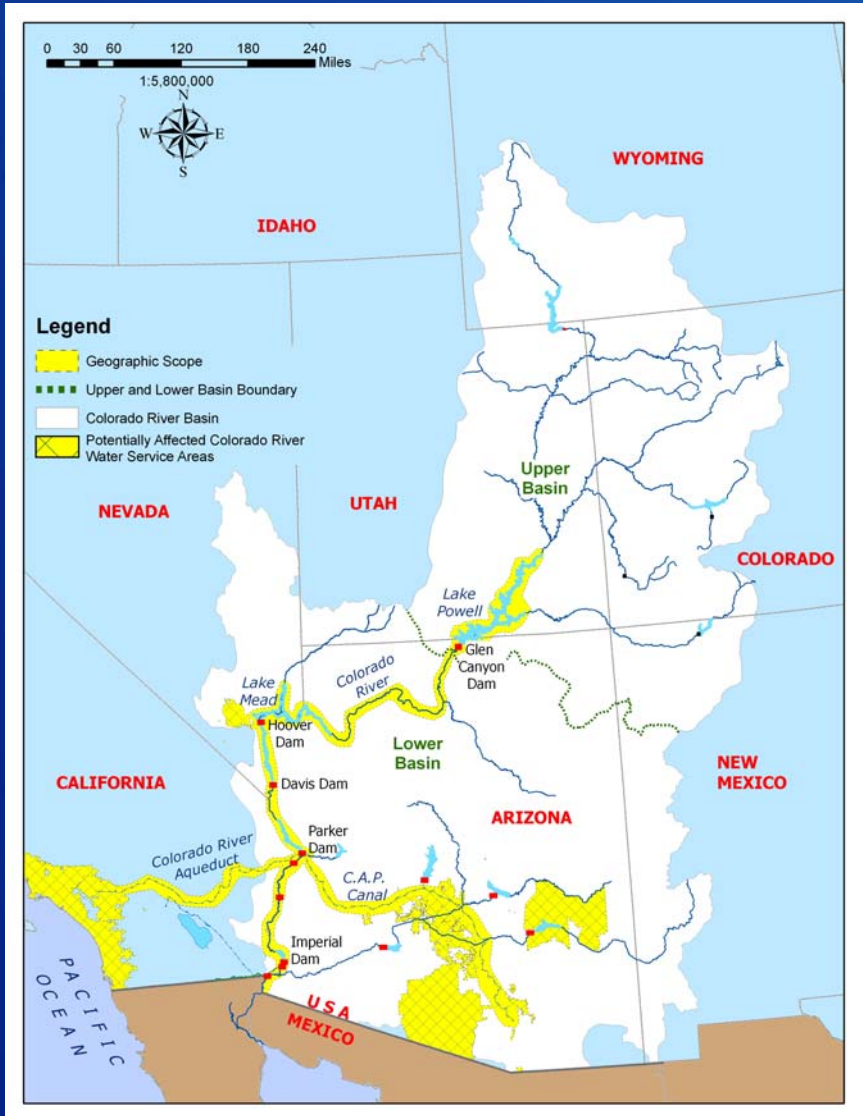
- Importance of encouraging conservation of water
- Importance of considering reservoir operations at all operational levels
- Guidelines for an interim period (assumed to be 2008 through 2026)

# Elements of Proposed Federal Action

- 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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# Geographic Scope



- Domestic Action
- 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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# Alternatives Analyzed in Draft EIS

- No Action Alternative
- Basin States Alternative
- Conservation Before Shortage Alternative
- Water Supply Alternative
- Reservoir Storage Alternative



# Comments on Draft EIS

- Received 77 comment letters and had two individuals provide oral comments during public hearings:

Business	1	Indian Tribes	11
Federal agencies	6	Local Agency	18
Associations/ Special Interest	9	State Agency	9
Individual	23	Public Hearing Comments	2

- Letters contained approximately 1532 comments

# Preferred Alternative

- Informed by public comments made on the Draft EIS
- Composed of the operational elements identified and analyzed in the Draft EIS
- Published on June 15<sup>th</sup>

# Preferred Alternative (continued)

- Key Elements:
  - A shortage strategy tied to Lake Mead elevations
    - 333, 417, 500 kaf at elevations 1075, 1050, and 1025 feet
    - Initiate efforts to develop additional guidelines for shortages if Lake Mead falls below elevation 1,025 (Includes re-consultation with Basin States)
  - Release from Lake Powell determined by storage of Powell and Mead
    - Under high reservoir conditions, minimum objective release of 8.23 maf from Lake Powell unless storage equalization releases are required
    - Under lower reservoir conditions, either reduce Lake Powell release or balance volumes depending upon elevations at Lake Powell and Lake Mead

# Preferred Alternative (continued)

- Storage and delivery of conserved system and non-system water, Intentionally Created Surplus (ICS)
  - Maximum total ICS in Lake Mead of 2.1 maf (with opportunity to increase up to 4.2 maf)
  - System assessment of 5% when ICS is created
  - Evaporation losses of 3% assessed annually of ICS in storage
- ISG modified to eliminate Partial Domestic Surplus condition and extended through 2026



# Anticipated 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 – April 2007
  - Published Draft EIS on February 28<sup>th</sup>
  - Public comment period through April 30<sup>th</sup>
- ✓ June 2007
  - Published the preferred alternative on June 15<sup>th</sup>
- September 2007                      Publish Final EIS
- December 2007                      Publish Record of Decision

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An aerial photograph showing a large reservoir, Lake Powell, nestled in a deep canyon. The water is a vibrant blue-green. In the foreground, a concrete dam structure is visible, with a road and some buildings nearby. The surrounding cliffs are dark and rugged. The sky is clear and blue.

# **Colorado River Interim Guidelines for Lower Basin Shortages Guidelines and Coordinated Operations of Lake Powell and Lake Mead**

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**Project website:**

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

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