

The Department of the Interior  
and the Bureau of Reclamation  
are considering adopting an  
Interim Guideline for  
Determination of 602(a) Storage  
in the Upper Colorado River  
Basin

Federal Register Notice was issued on January 28, 2003 to Solicit Public Comments on the Adoption of an Interim 602(a) Storage Guideline and to Initiate a National Environmental Policy Act (NEPA) Process

# 602(a) Storage

## Background

602(a) Storage  
and the  
Concept of Storage Equalization

First introduced in the 1968  
Colorado River Basin Project Act  
Section 602(a)

# 602(a) Storage

- Storage in Upper Basin necessary to assure deliveries to Lower Basin without impairment to consumptive use in the Upper Basin
- Equalization releases are not required in years when Upper Basin storage is less than 602(a) storage

# Article II(1) of the Long Range Operating Criteria

- Requires annual Secretarial determination of 602(a) storage
- Relevant Factors
  - Historic Streamflows
  - Critical Period of Record
  - Probabilities of Water Supply
  - Future UB Depletions, recurrence of Critical Period
  - Report of the Committee on Probabilities and Test Studies

# Basin States Agreement on Surplus and Related Issues

In the summer of 2000, during the public comment period on the Draft Environmental Impact Statement for the Colorado River Interim Surplus Criteria, the Basin States submitted information to the Department of Interior on interim surplus criteria and a number of other related issues. This information was published in the Federal Register on August 8, 2000. See 65 Fed. Reg. 48531.

# Basin States Proposed 602(a) Storage

- V. Determination of 602(a) Storage in Lake Powell during the Interim Period
- During the Interim Period, 602(a) storage requirements determined in accordance with Article II (1) of the Criteria shall utilize a value of not less than 14.85 maf (elevation 3630 feet) for Lake Powell.

# Process for Implementation

- NEPA process
  - likely an Environmental Assessment (EA)
- Concurrence from FWS if Reclamation's assessment shows 'may effect'
- Likely Federal Register notices
  - Notice of consideration/ Initiation of NEPA
  - Notice of availability of NEPA documents
  - Notice of proposal to adopt a guideline for implementing Article II(1) of the Operating Criteria

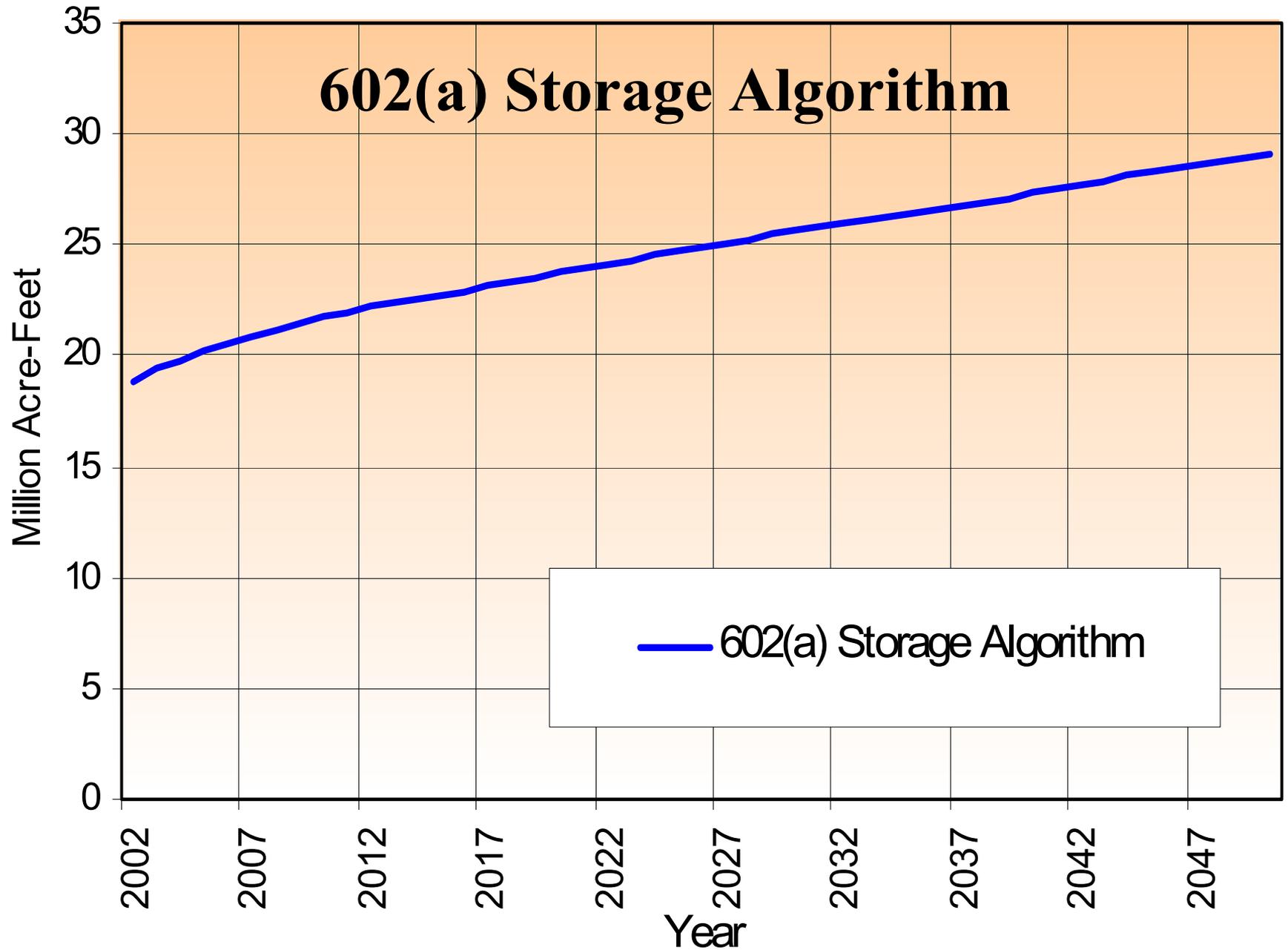
# Analysis of Proposed 602(a) Storage

- CRSS/RiverWare will be used to analyze the effects of the proposed 602(a) storage on the Colorado River system
- Analysis of the proposed 602(a) storage will use the existing CRSS 602(a) Storage algorithm to model the baseline condition

# Existing CRSS 602(a) Model Algorithm

- 12 year critical period (1953-1964) to represent a period of dry hydrology.
- Each year the model performs a 12 year mass balance in the Upper Basin, to determine the storage necessary in the Upper Basin to assure minimum objective release deliveries to the Lower Basin without Upper Basin consumptive use being impaired.
- All of active Storage in Lake Powell, Flaming Gorge, Navajo and Blue Mesa can be used.

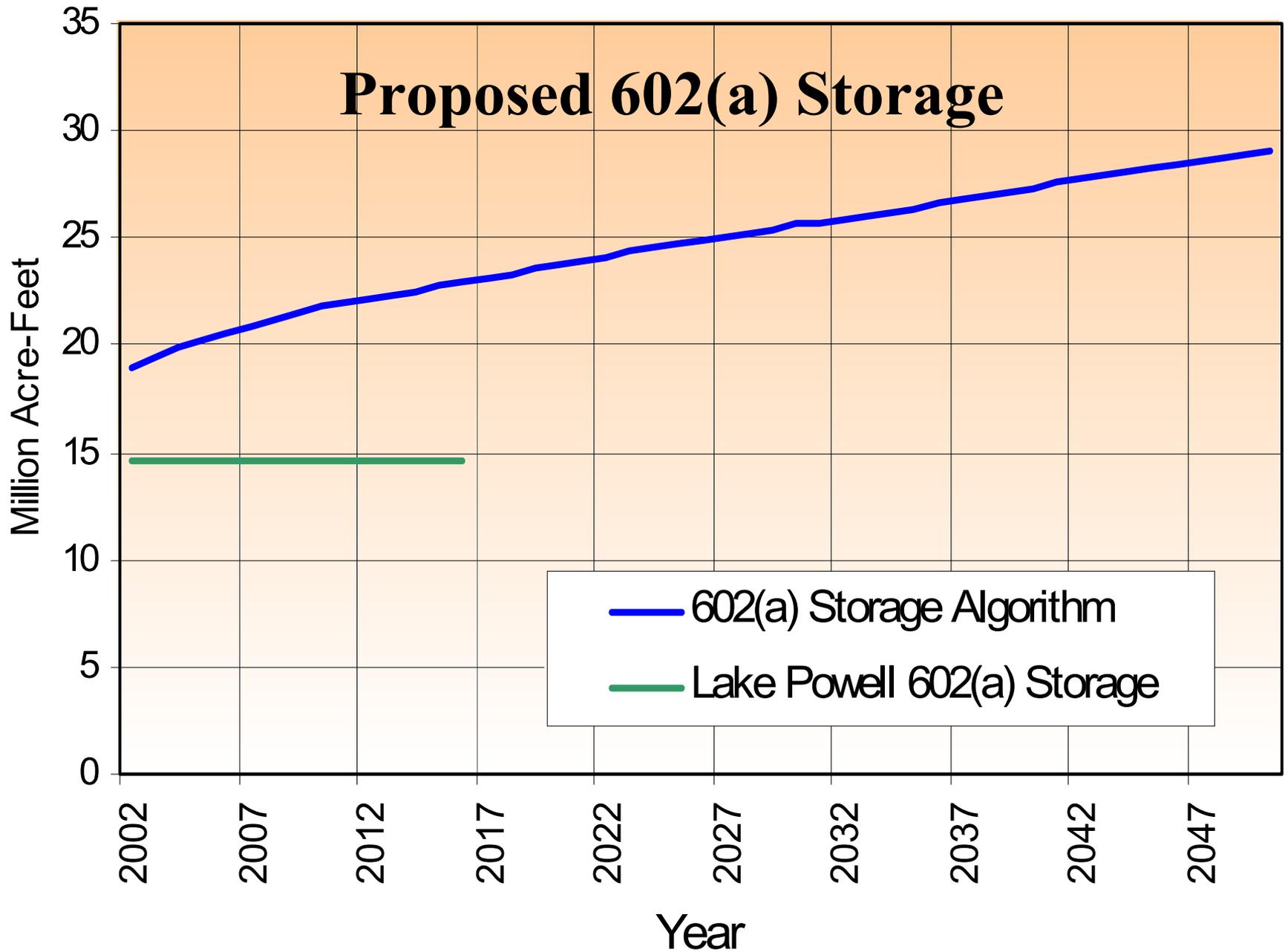
# 602(a) Storage Algorithm



# Proposed 602(a) Model Algorithm

- Existing CRSS storage equalization “rules” will be included, but a new rule will be added
- The new Rule will “fire” after the existing storage equalization rules have been executed
- The new rule checks to see if Lake Powell is projected to have less than 14.85 maf of storage during the current year on September 30. If so, and if equalization releases were scheduled under the baseline storage equalization rules, such releases are not made, and the release for the year is scheduled to be 8.23 maf
- Each month the model simulates from January through September the equalization rules (new and old) are fired

# Proposed 602(a) Storage



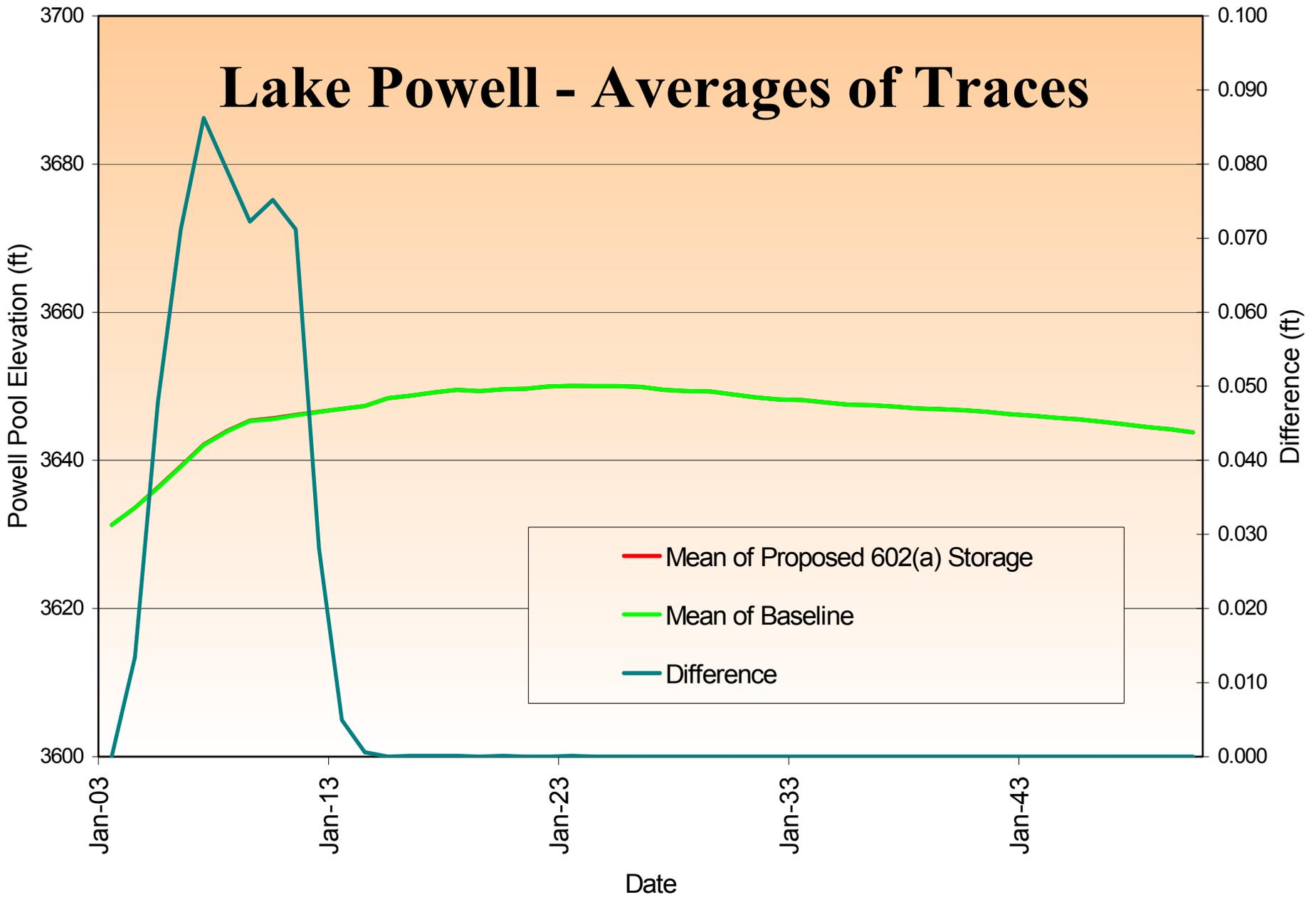
# Key Elements of the Proposed 602(a) Storage

- Does not alter the minimum objective release of 8.23 maf
- Only affects equalization releases
- In effect through water year 2016

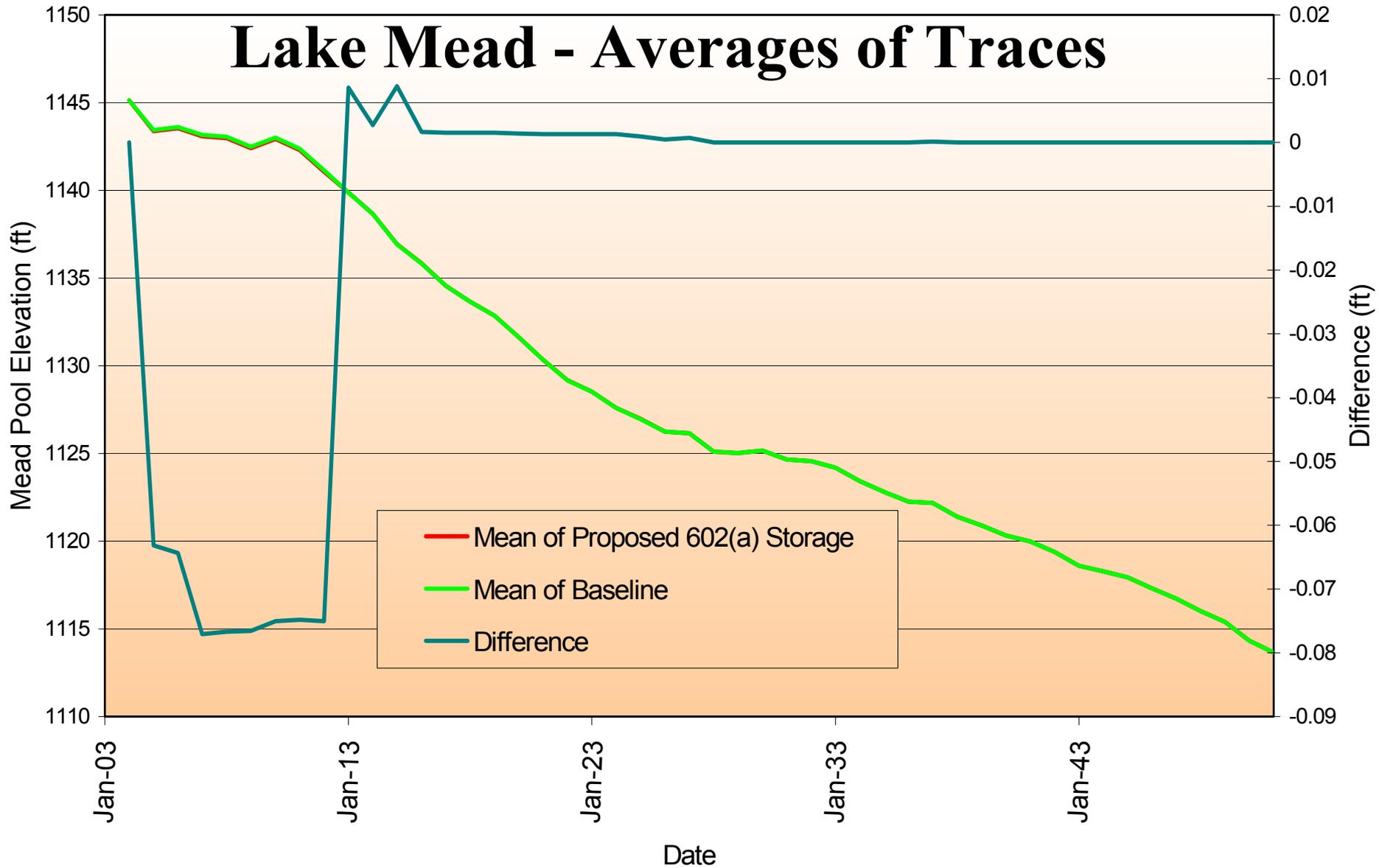
# Draft Modeling of Proposed 602(a) Storage

- Highly unlikely to impact to LB water supply
- No impact to deliveries to Mexico
- No change to GC BHBF frequency
- No changes in 10, 50 and 90 percentiles for Lake Powell and Lake Mead water surface
- 10 of the 85 model traces show minor changes to Powell and Mead Storage.
- These same traces show minor changes in monthly release volumes from Glen Canyon

# Lake Powell - Averages of Traces

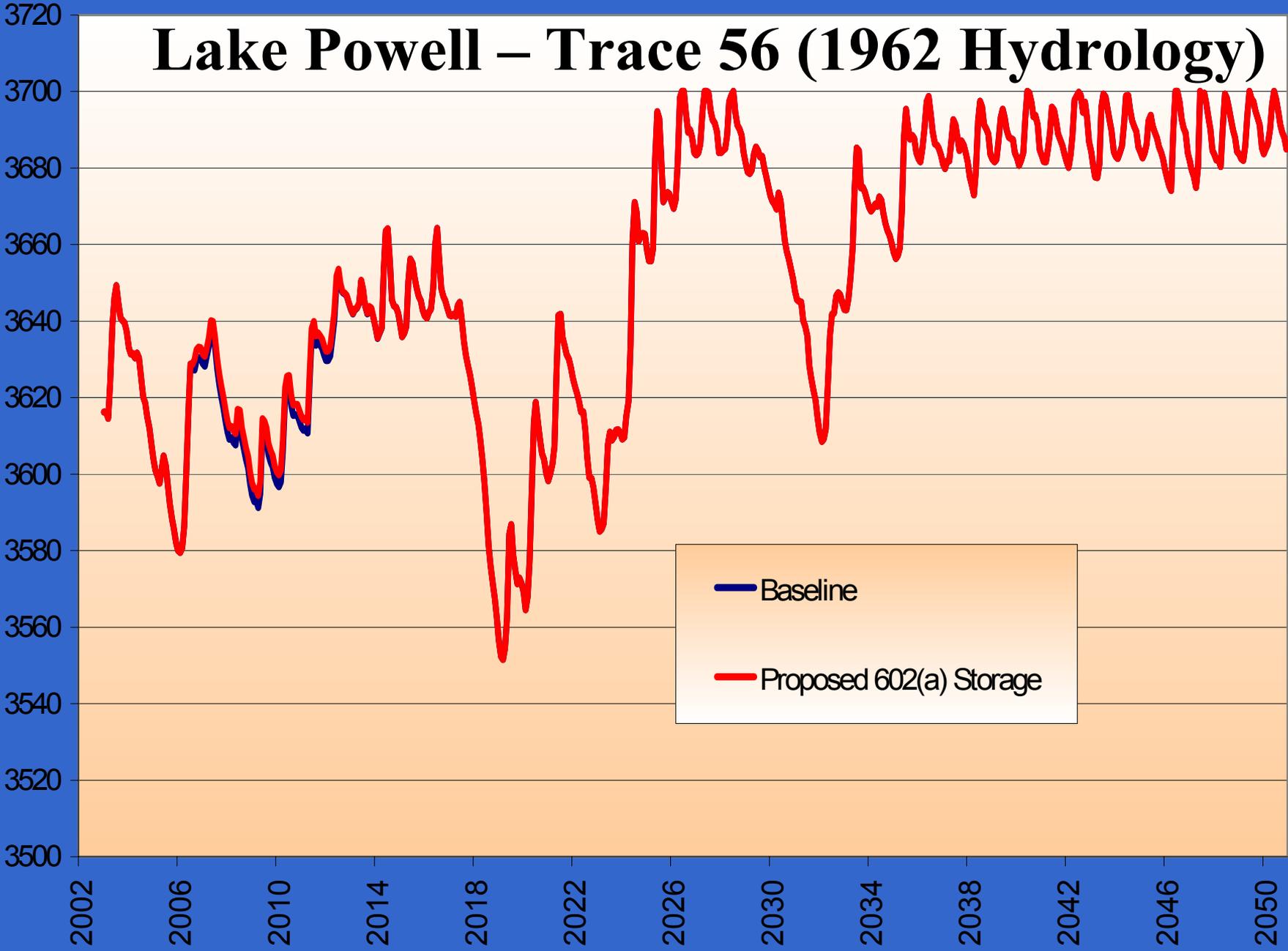


# Lake Mead - Averages of Traces



# Lake Powell – Trace 56 (1962 Hydrology)

Water Surface Elevation (feet)



Baseline  
Proposed 602(a) Storage

# If implemented, how would the 602(a) Storage Guideline be applied?

- Each year through AOP Process
- Storage equalization releases would not occur in years when Lake Powell storage is projected to be below 14.85 maf for the water year ending on September 30.