

# Integrated Resources Planning Committee

## Item 4c

Subject: Colorado River Outlook and the IRP

Purpose: The purpose of this oral report is to highlight potential challenges to CRA supplies in the context of setting revised targets in the 2015 IRP Update.

# Integrated Resources Planning Committee

Item 4c

## Summary

This oral report outlines some of the challenges to Colorado River Aqueduct supplies that could impact long-term goals in the IRP.



# Colorado River Outlook and the IRP

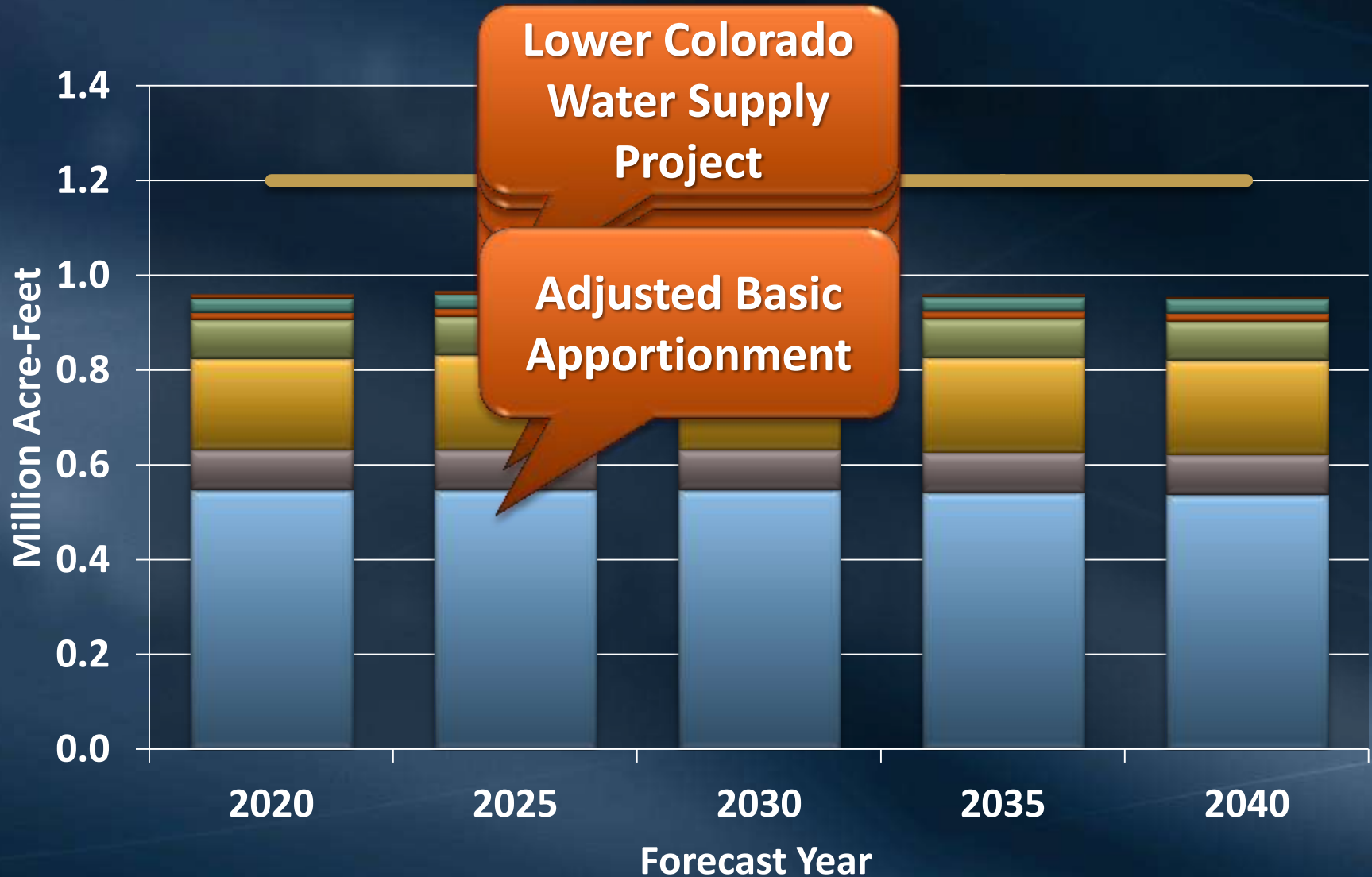
Integrated Resources Planning Committee

Item 4c

September 29, 2015

# CRA Supplies and Programs

## 2015 IRP Draft Forecast



# Colorado River Long-term Goals

- Maintain a reliable base of supply programs on the Colorado River Aqueduct
  - 0.9 MAF growing to 1.0 MAF
- Develop and implement options that can be used to fill the Aqueduct in dry years
  - 1.2 MAF

# Challenges to Meeting Long-Term Goals





# Issue #1: Minimizing Colorado River Supply Losses



# 1931 Seven Party Agreement

	<u>MAF</u>
1. Palo Verde Irrigation District	3.850
2. Yuma Project	
3. Imperial Irrigation District/ Coachella Valley Water District	
4. Metropolitan WD	0.550
	<u>4.400</u>
5. Metropolitan WD	0.700
	<u>5.100</u>
<b>Subtotal</b>	
<b>Total</b>	



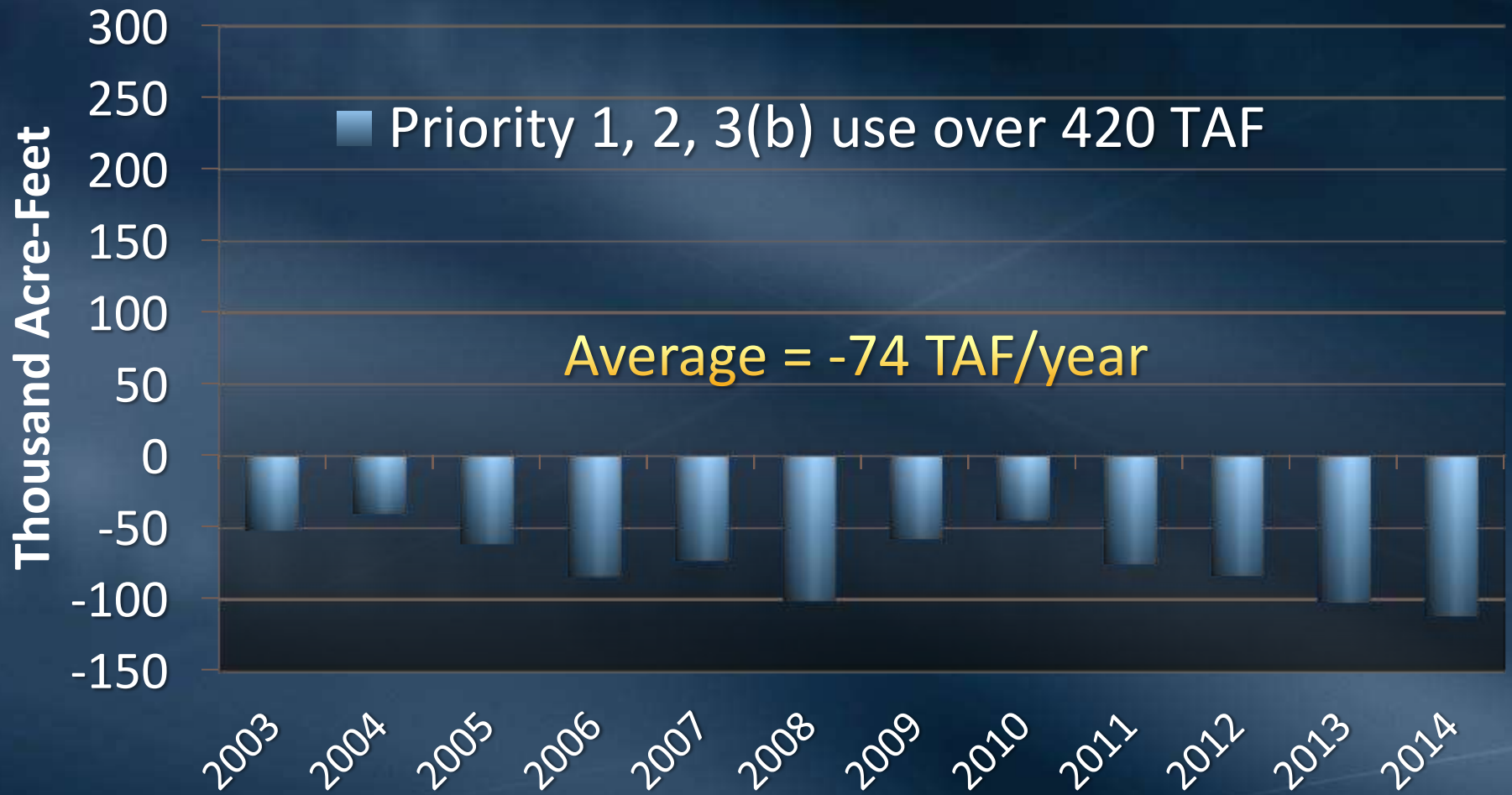
# Quantification Settlement Agreement

## Quantified Water Budgets

	<u>MAF</u>
PVID	0.42 (Average)
Yuma Project	
IID	3.10
CVWD	0.33
<u>MWD *</u>	<u>0.55</u>
<b>Total</b>	<b>4.40</b>

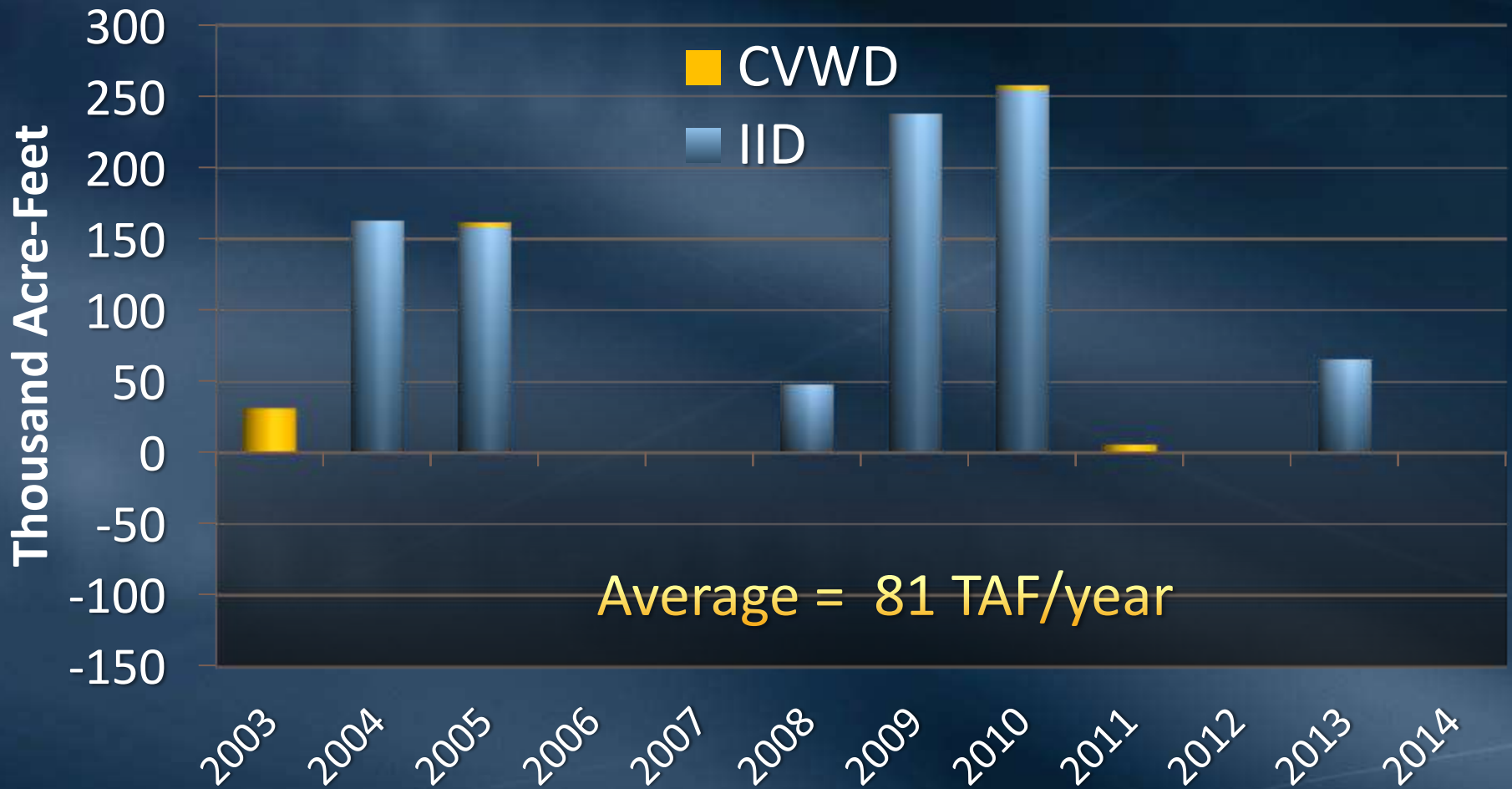
\*Amount fluctuates based on PVID/Yuma Project use, unused IID and CVWD water

# Agricultural Adjustments from Priority 1, 2, and 3(b) Use



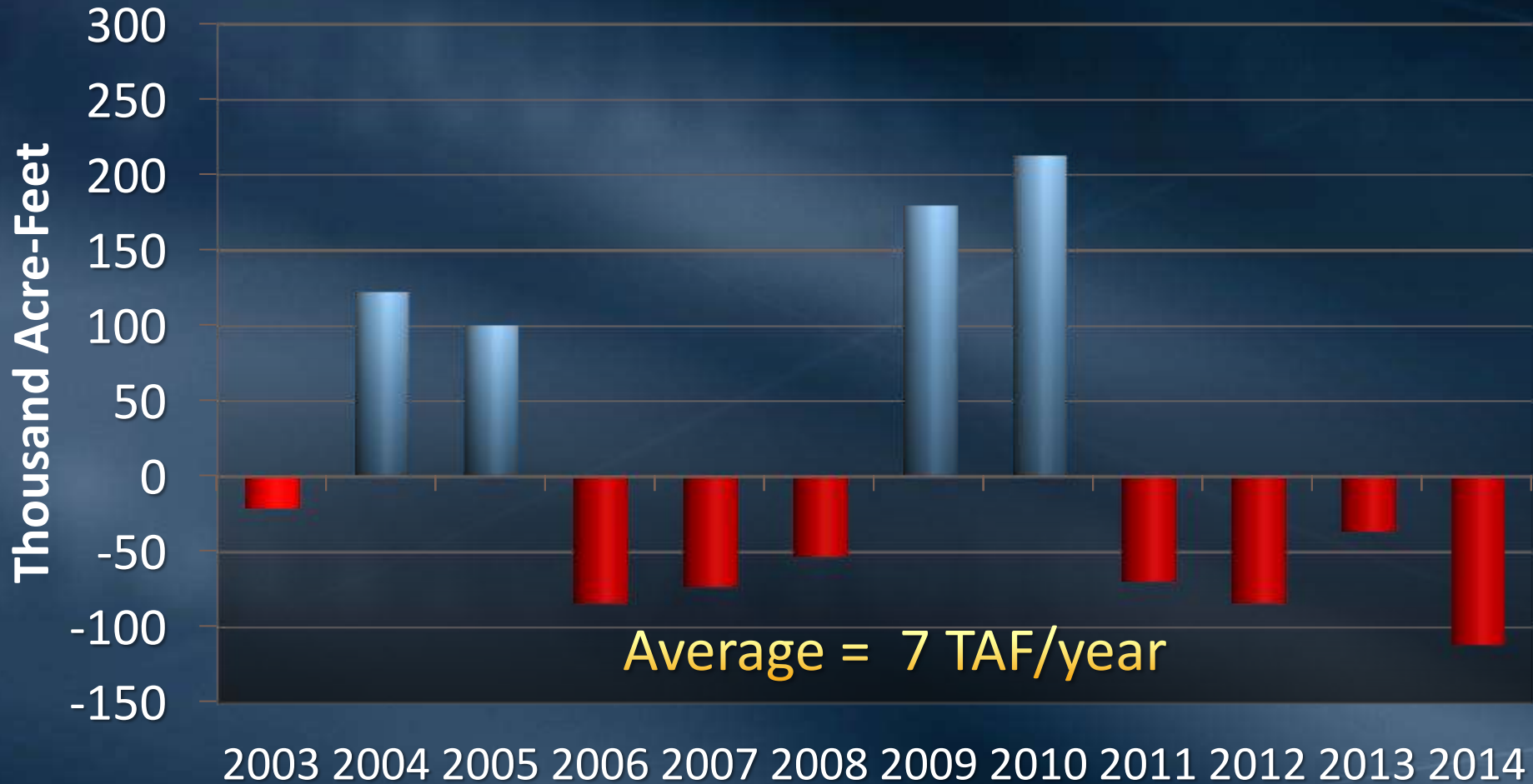
\*2014 Data is Preliminary.

# Annual Unused Apportionment from IID and CVWD



\*2014 Data is Preliminary.

# Annual Net Adjustment to Metropolitan's Basic Apportionment



\*2014 Data is Preliminary.

# Water Supply Risks to Metropolitan

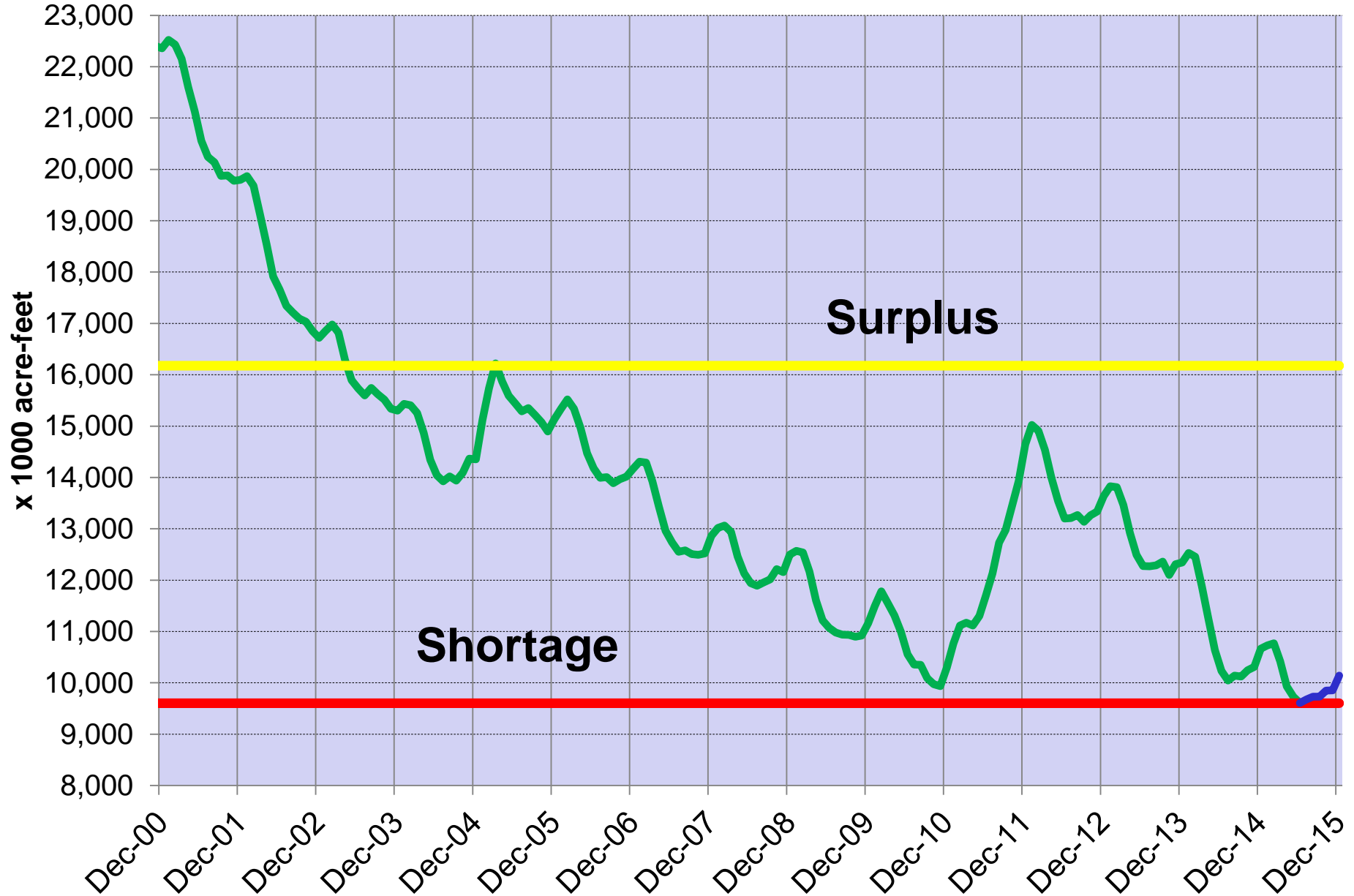
- Agricultural demand could grow along the Colorado River
  - PVID: 16,000 additional mesa acres
  - CRIT: 56,000 AF of unused water rights
  - Other areas could grow
- Water use increases would affect MWD's supply
- Options to address increases include expanded agricultural conservation, purchasing land to manage water supply



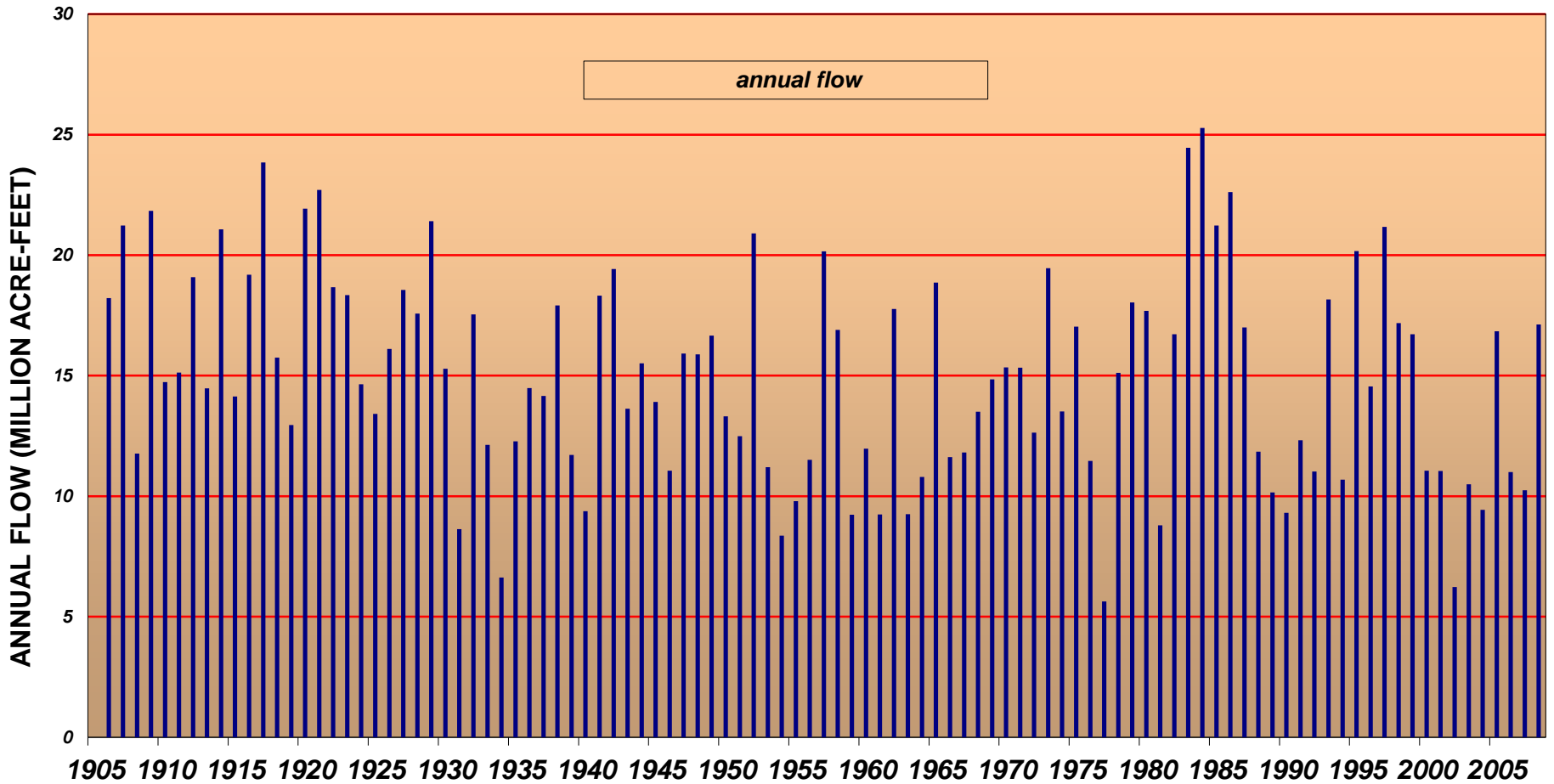
# Issue #2: Dealing with Drought



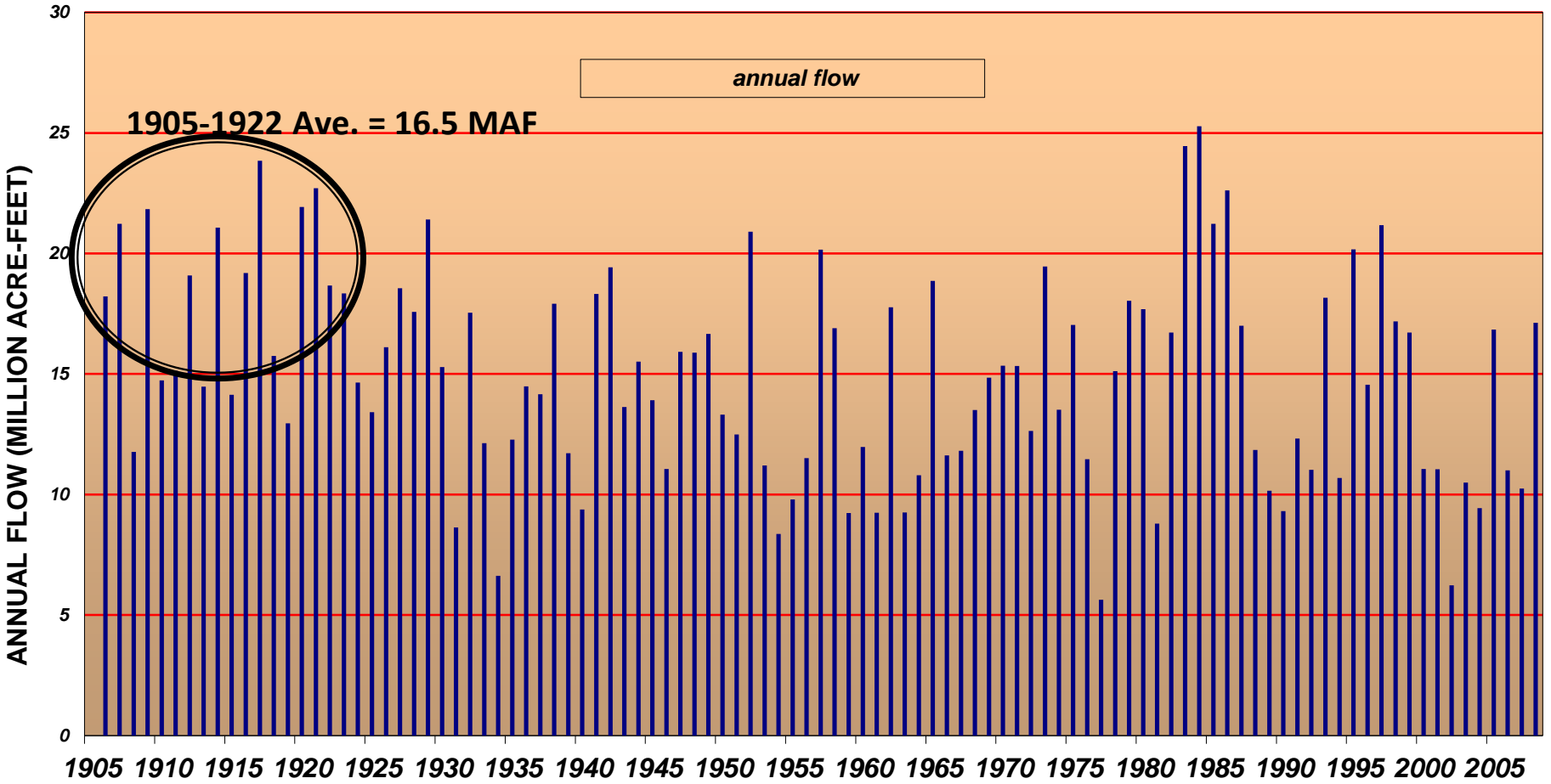
# Lake Mead Storage 2000 – 2015



**COLORADO RIVER NATURAL FLOW (AT LEE'S FERRY)**  
**1906-2008**  
**103 Year Average = 15.0 MAF**

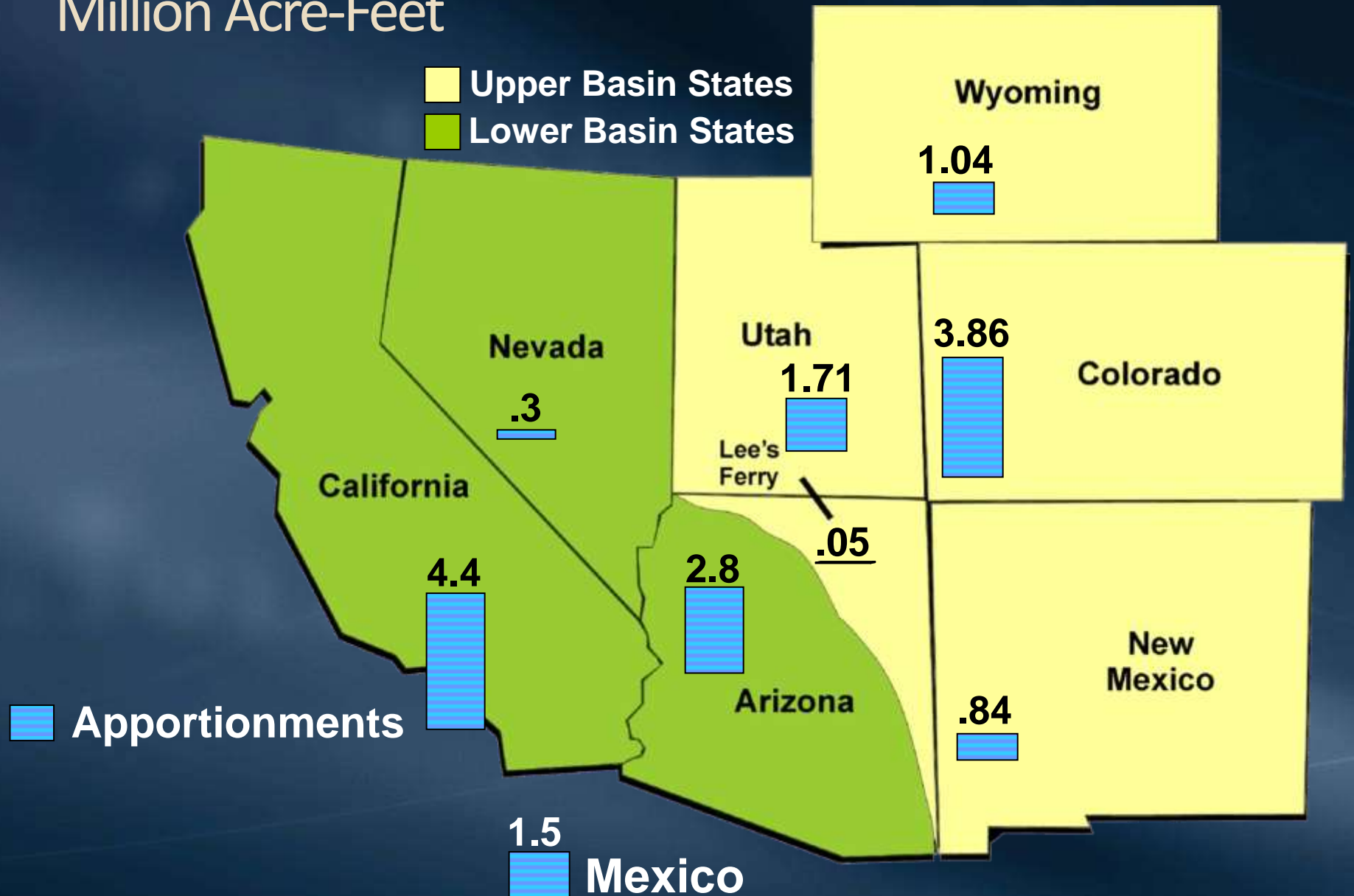


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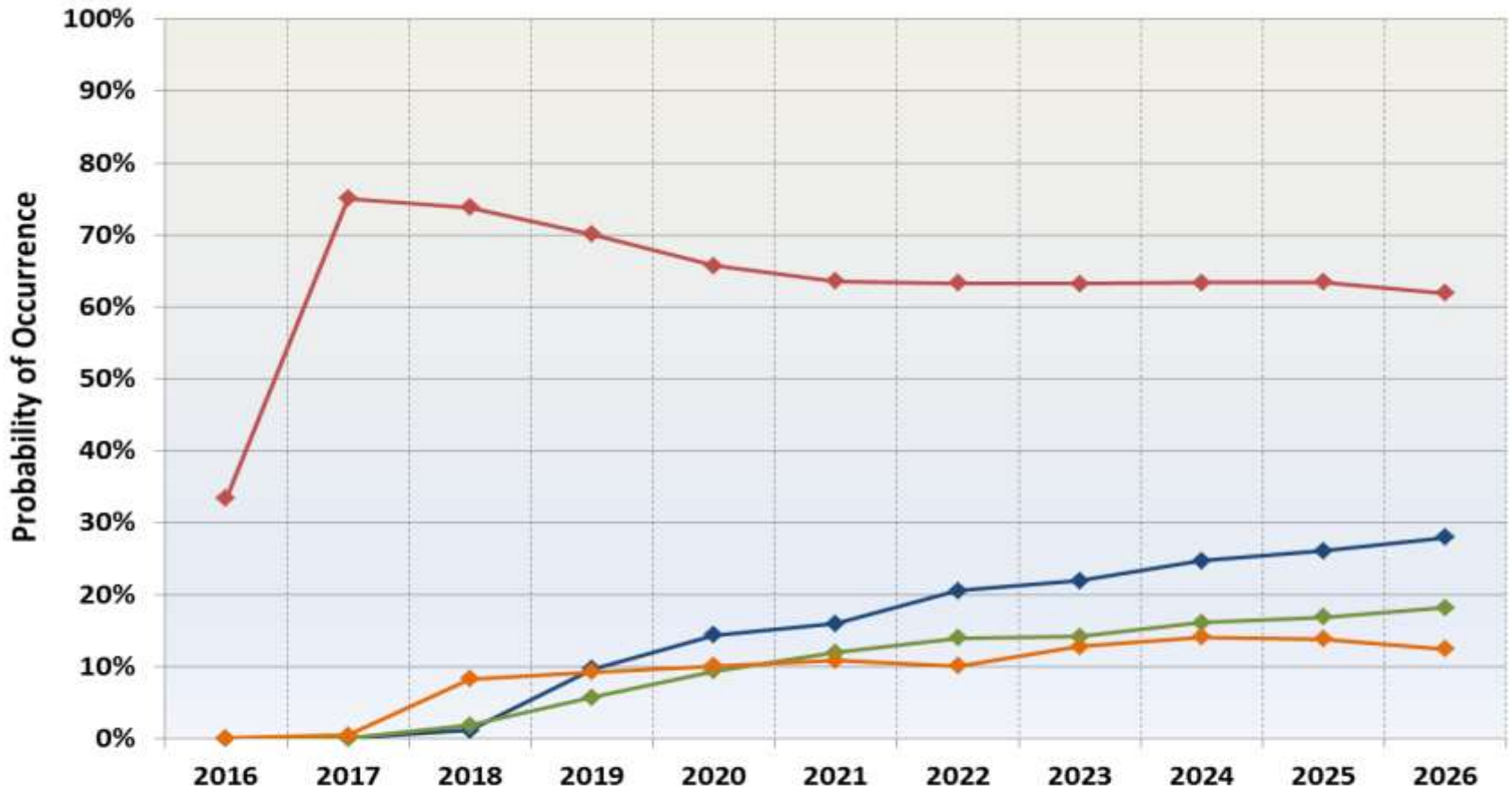
# Colorado River Apportionments

Million Acre-Feet





# Lake Powell and Lake Mead Projections 2016-2026



— Lower Basin Shortage and Mexico Reduction of Any Level  
— Lower Basin Level 3 Shortage and Mexico Reduction  
— Lake Mead below 1,025 feet

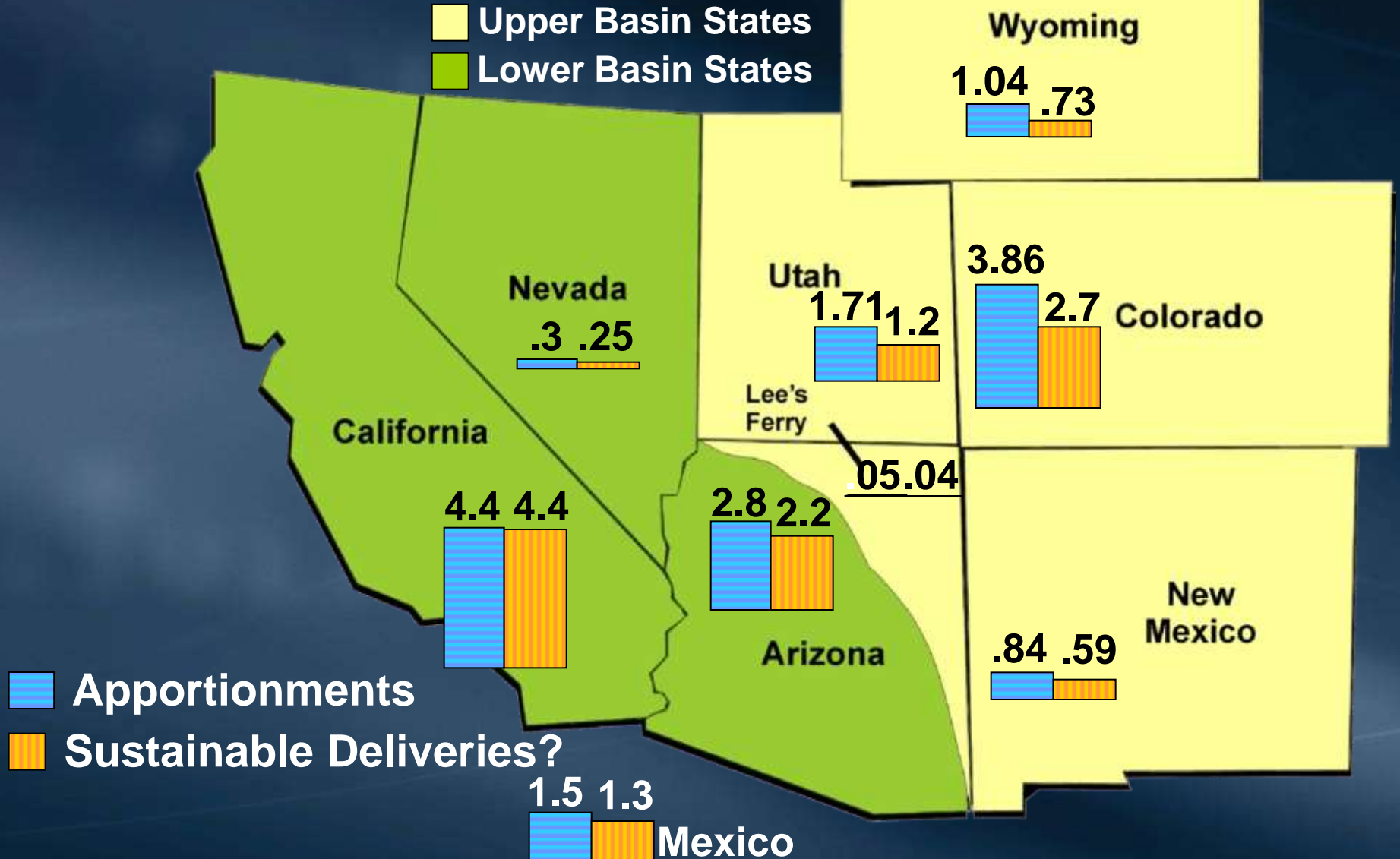
— Lake Mead below 1,000 feet  
— Lake Powell below Minimum Power Pool 3,490 feet

# Lake Mead's Future in Average Years



# Colorado River Apportionments

Million Acre-Feet





# Shortage Impacts to Metropolitan

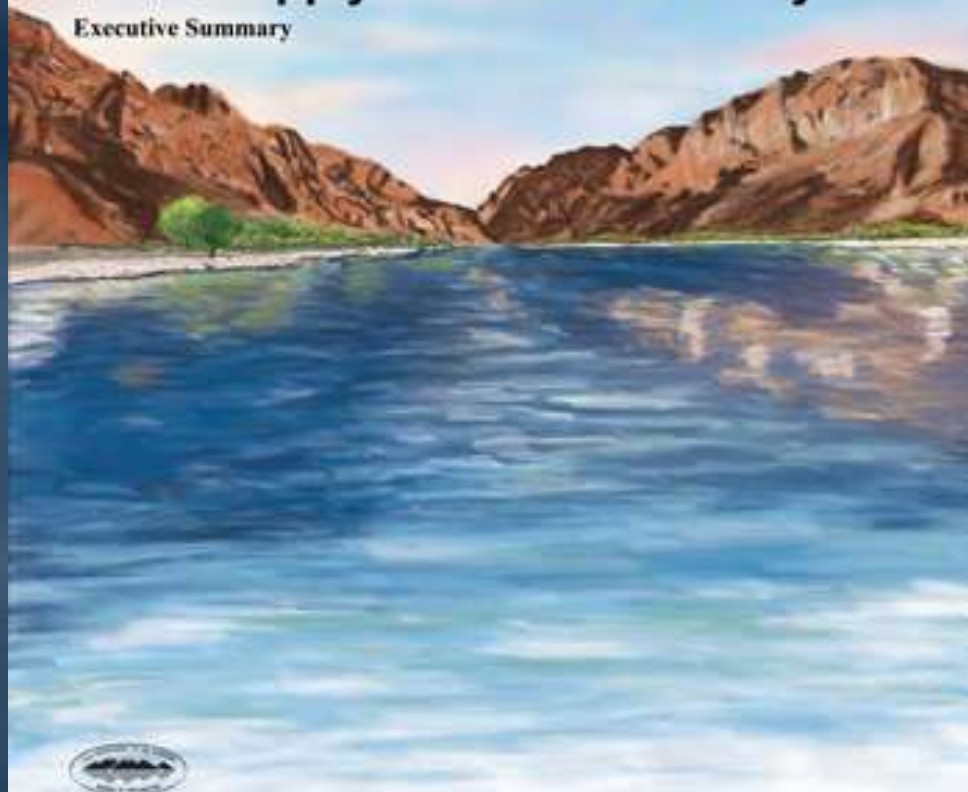
- Many water management and supply programs impacted
  - ICS Storage in Lake Mead
  - SNWA Exchange Program
  - Fund conservation outside of CA
  - Overrun flexibility
- If shortage severe enough, California could be cut back
- Working with other states to address issues

# RECLAMATION

*Managing Water in the West*

## **Colorado River Basin Water Supply and Demand Study**

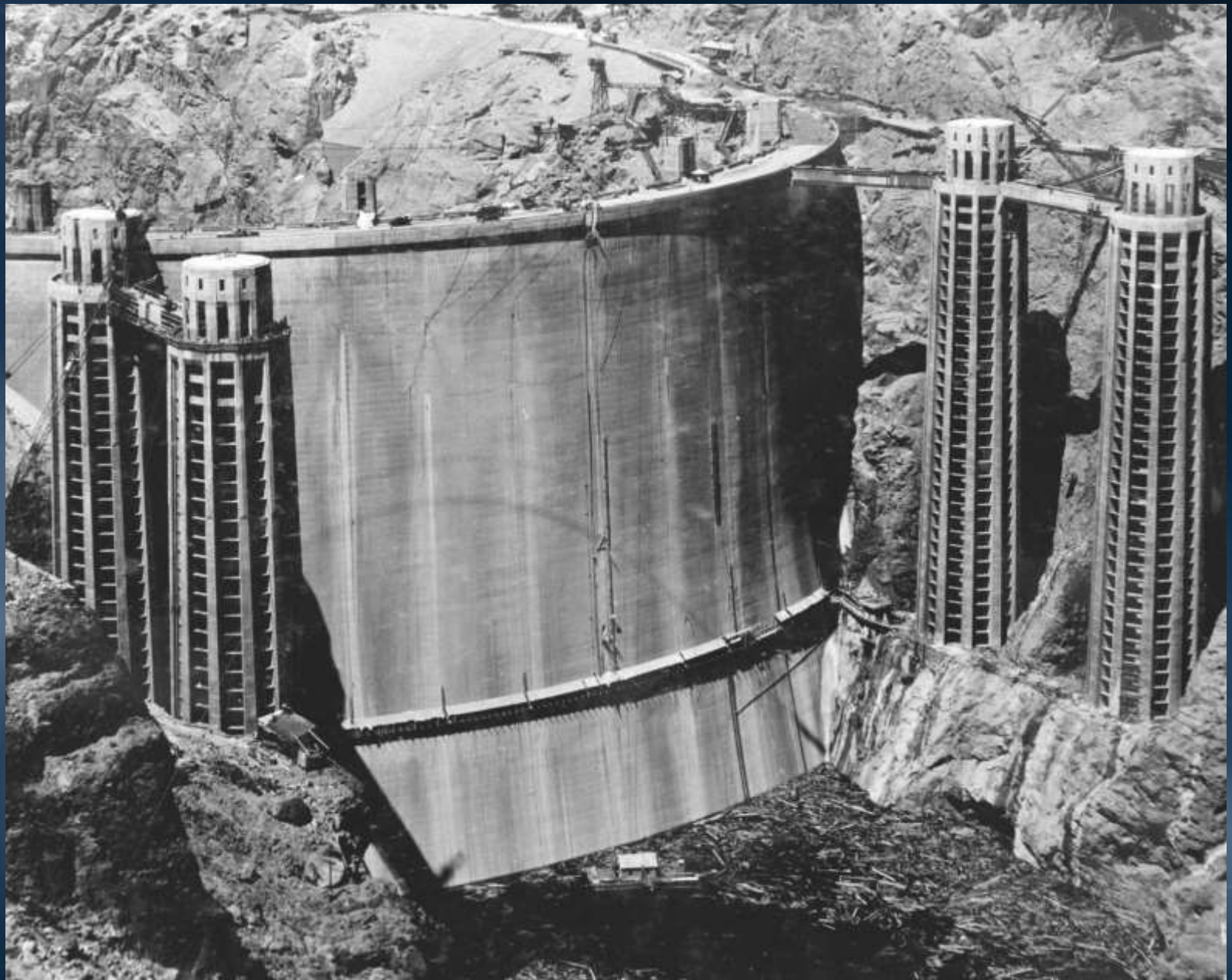
Executive Summary



U.S. Department of the Interior  
Bureau of Reclamation

December 2012





# Issue #3: Uncertain Future of the Salton Sea



# QSA Provided Time to Restore the Salton Sea

- Formed in 1905
  - Sustained by Ag drainage
- 50% Saltier than Ocean
  - Salinity increase 1%/yr
  - Soon too Salty for Fish
- Sea protected from QSA Transfer Impacts for 15 years
  - IID to deliver 800 TAF of “mitigation water” to Salton Sea through 2017
  - Provided time for state to develop long-term solution





# Frequent Fish Kills on the Salton Sea

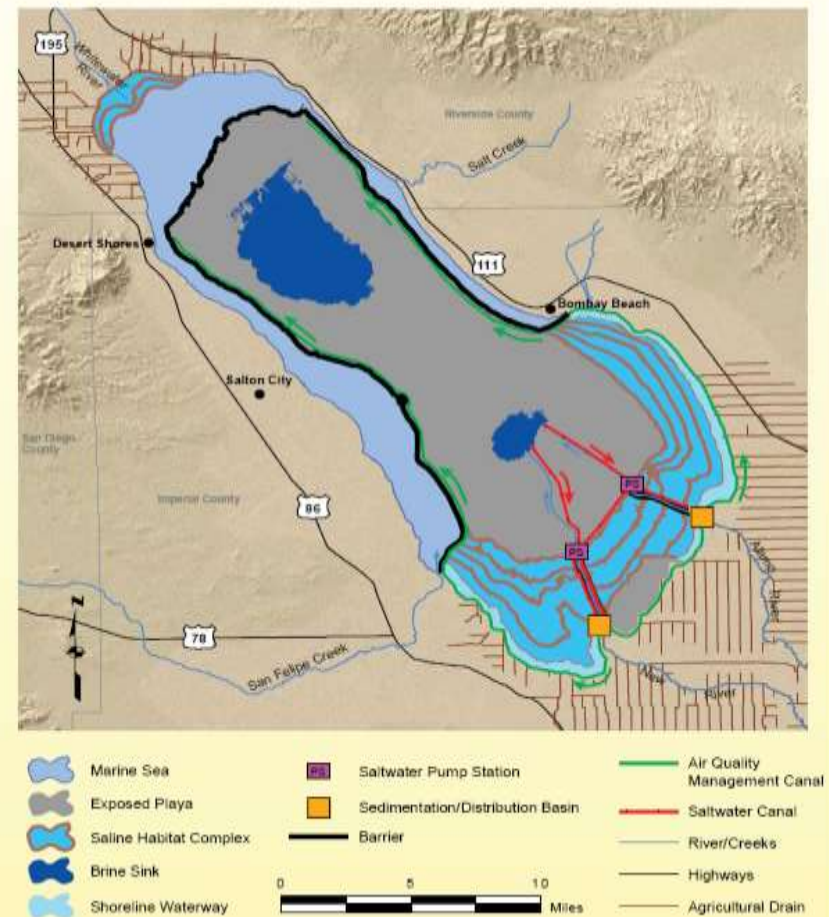


# 15 Year Period Nearing End; No Action Taken to Save Salton Sea

- State has done little to advance Sea's restoration
- Issued Draft EIR
  - Preferred Alternative \$9 billion, \$100 million O&M
- IID petitioned SWRCB to condition QSA transfers on Salton Sea restoration
- Resources agencies hosting meetings with stakeholders

Figure 6

## Preferred Alternative



# Salton Sea Risks to the QSA

- IID threatens to end transfers to SDCWA and CVWD without restoration plan
- If dust not sufficiently mitigated, lawsuits could block QSA transfers
- Encouraging state to develop consensus Salton Sea solution



# Summary

- Metropolitan, along with SDCWA, have implemented significant ag to urban transfers to help CA live within 4.4 MAF Apportionment
- New tools have been developed to help manage those supplies
  - Lake Mead ICS
- The Colorado River faces continued challenges to its water supply reliability that will require new and innovative agreements and actions

# Summary

- Potential approaches to stabilizing CRA supplies
  - Increase fallowing (Bard, PVID) to offset higher priority use
  - Incentivize lower water use crops
  - Purchase land
  - Be proactive in Salton Sea solutions
  - Negotiate ICS and exchange flexibility rules during shortages

