



# Western State Weather Impacts

October 22, 2021



**AGRIBUSINESS  
& WATER  
COUNCIL  
OF ARIZONA**

Chris Udall

Executive Director



# AGRIBUSINESS & WATER COUNCIL OF ARIZONA



We were established in 1978 to respond to proposed state water legislation: the Groundwater Management Act of 1980

The Act created the Department of Water Resources and created 5 Active Management Areas (AMAs) to address groundwater mining

ABWC later became the state affiliate to the



# DROUGHT

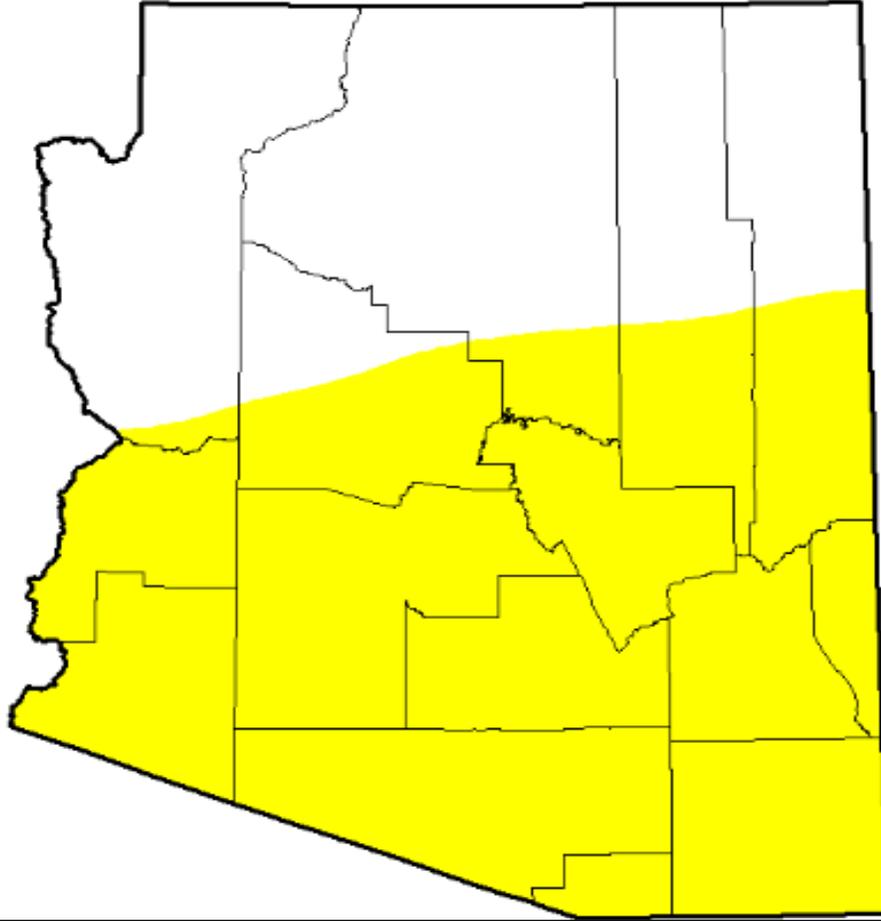
## Impacts on ARIZONA

Monument



- Experiencing 21<sup>st</sup> year in drought conditions
- Reservoirs were in good shape in 2000
- Only one or two good winters since then (2010-2011)

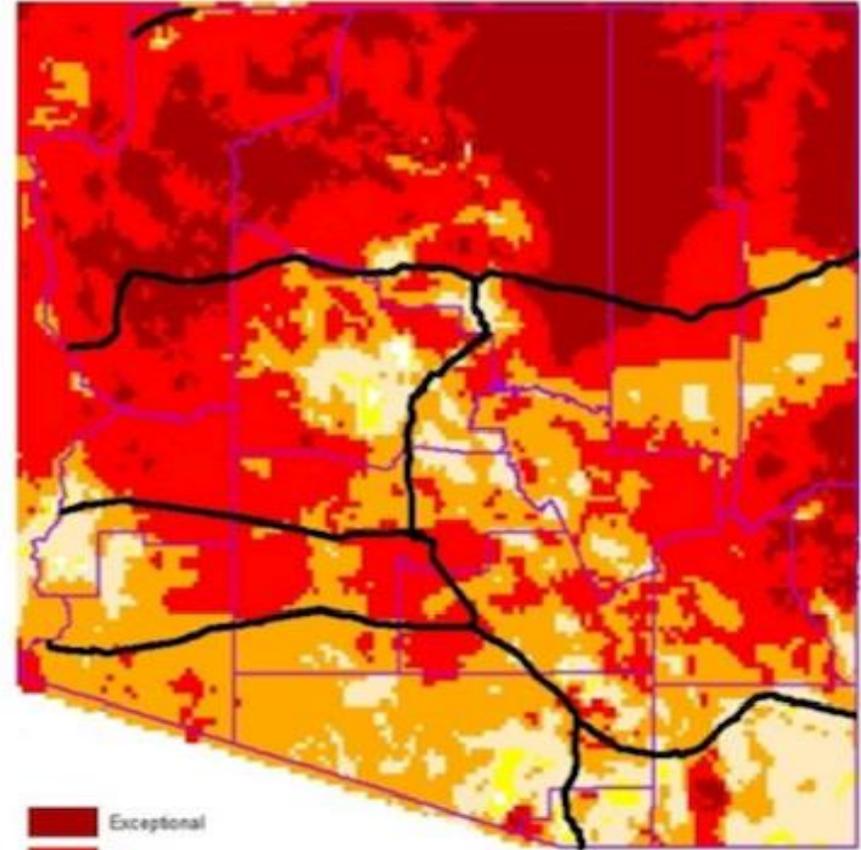
# January 4, 2000



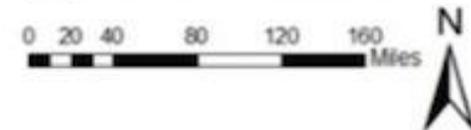
Intensity:



# July-September 2021 Long-term Drought



(C)2021 Arizona State Climate Office



# Colorado River 2007 Interim Guidelines

- Established and signed by Interior Secretary Dirk Kempthorne in 2007 at the Colorado River Water Users Association Annual Conference in Las Vegas
- Guidelines established criteria to address drought and coordinate water and power operations at Lake Powell and Lake Mead
- Guidelines established elevation levels that trigger a shortage declaration. First shortage trigger is at 1075' above sea level in Lake Mead
- Guidelines are effective until December 31, 2025



# Drought Contingency Plan (DCP) 2007 Interim Guidelines not enough



- Beginning in 2019, the seven basin states and Mexico established an addendum to the 2007 Interim Guidelines for upper and lower basin states (stakeholder and state and federal legislative effort). DCP adjusted elevation levels that prompt various Tier shortage declarations.

# Arizona Approves Drought Contingency Plan



Governor Doug Ducey, flanked by lawmakers and other water stakeholders, signs legislation authorizing Arizona to approve the Drought Contingency Plan (DCP) on January 31, 2019.

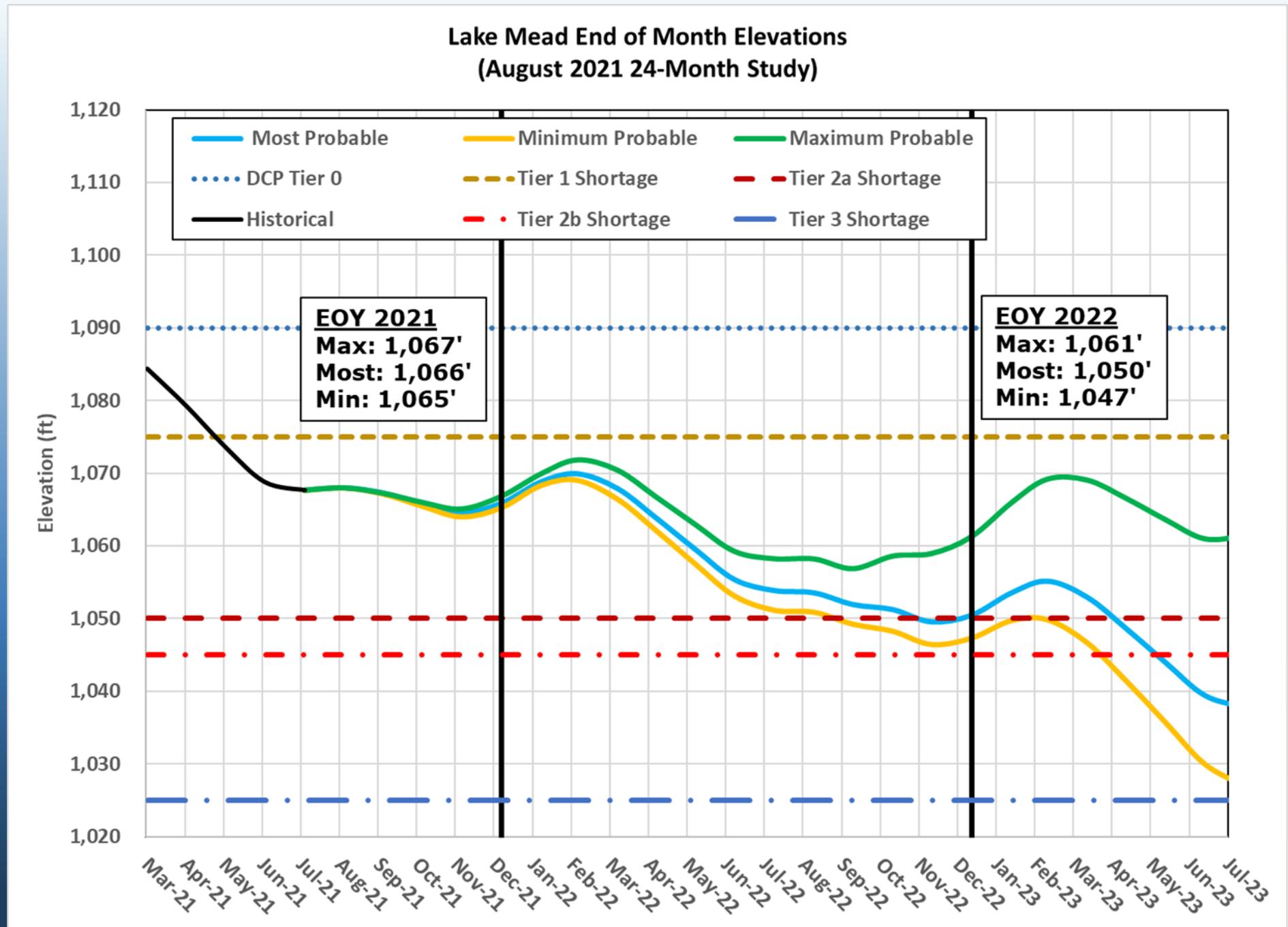
2007 Guidelines and DCP were developed to avoid shortages. Arizona would have reached Tier 1 much earlier (2-3 years) without these and other mitigation efforts to leave water in Lake Mead.

# Drought Contingency Plan (DCP)

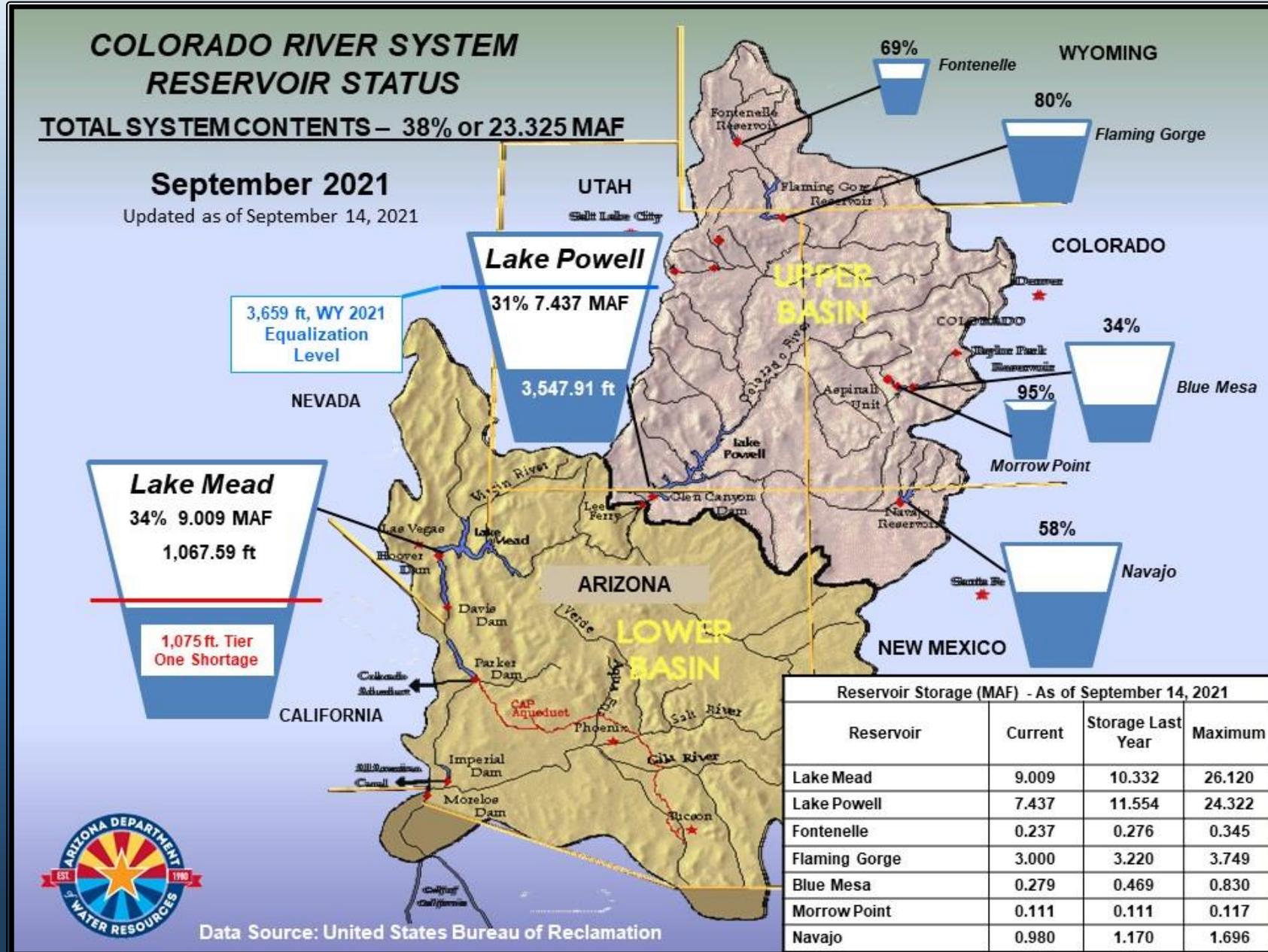
In the recent August 24-month study, with the water level in Lake Mead projected to reach 1,066 feet above sea level by Jan. 1, 2022 (elevation 1075' is the trigger), the Bureau of Reclamation announced the first-ever **Tier 1** shortage declaration requiring Arizona, Nevada and the country of Mexico to reduce their take of the river in 2022. California, with the largest share of the river, is not required to cut back at Tier 1, but could face reductions if Lake Mead's water elevation continues to drop.

# Mead End of Month Elevations

- August 2021 24-Month Study
- Min Probable scenario shows Mead < 1,030' prompting "1,030 Consultation" per Exhibit 1 to LBDCP (Sec. V.B.2)



Current elevation in Lake Mead=34%. Lake Powell=30% Total system storage=38%



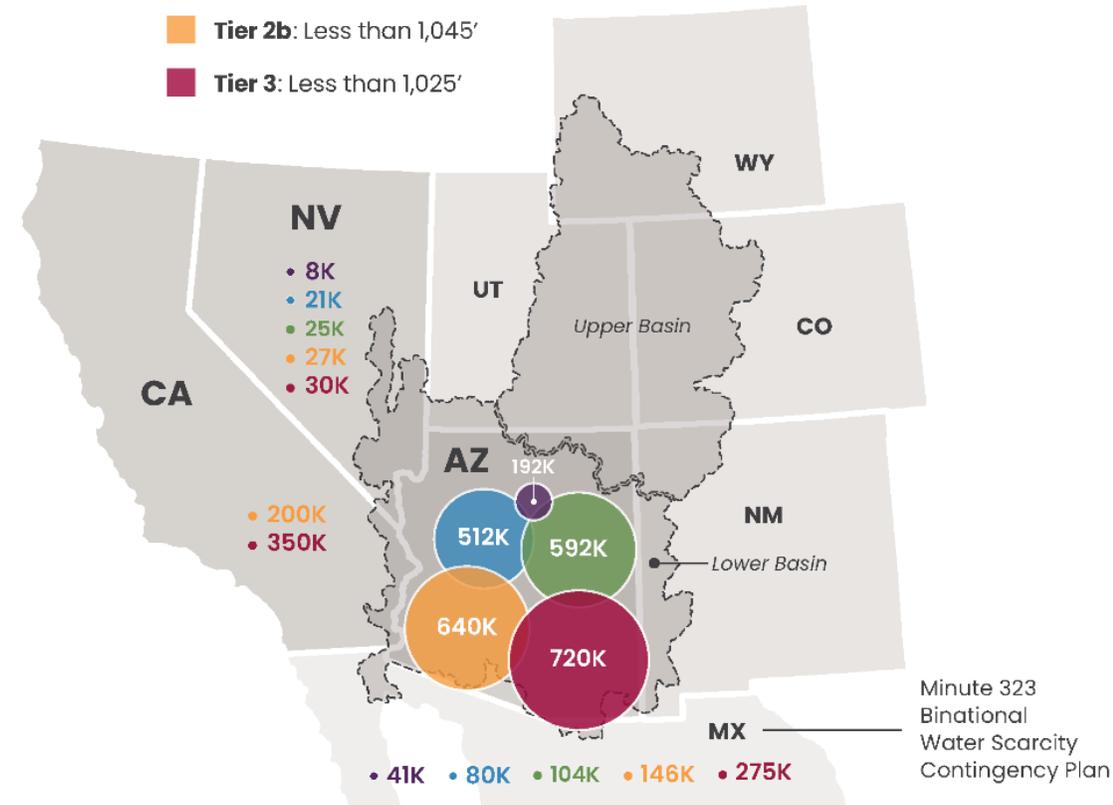
# 2022 Arizona Tier 1 Reduction Summary

- Total Reductions = 512,000 acre-feet
- Reductions to P<sub>5</sub>
  - Approximately 4,000 acre-feet of Consumptive Use reductions
- Reductions to CAP
  - Approximately 508,000 acre-feet of reductions
- No reductions to P<sub>4</sub> On-River
- No reductions to P<sub>1</sub> – P<sub>3</sub>

## LOWER COLORADO RIVER BASIN DCP CONTRIBUTIONS TO LAKE MEAD

IN ACRE-FEET PER ELEVATION PER YEAR

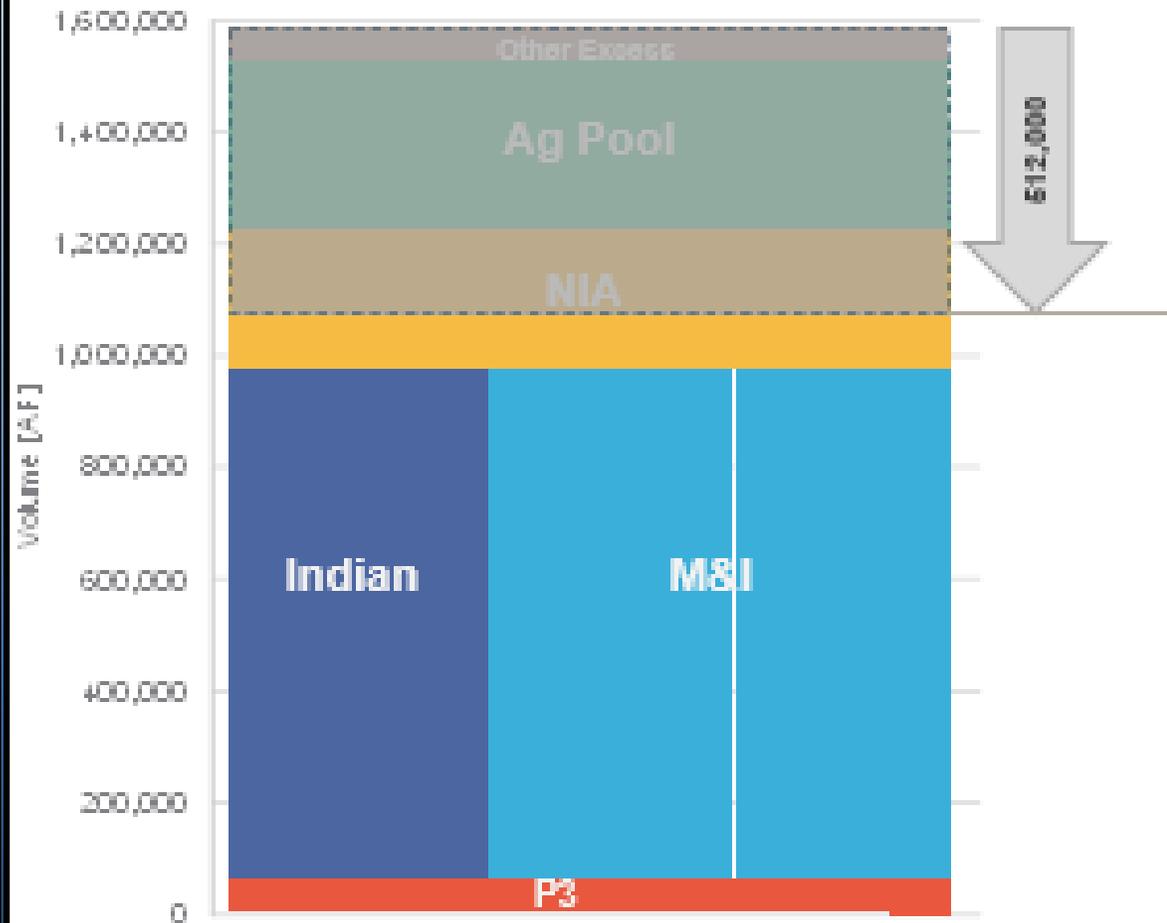
- **Tier Zero:** Less than 1,090'
- **Tier 1:** Less than 1,075'
- **Tier 2:** Less than 1,050'
- **Tier 2b:** Less than 1,045'
- **Tier 3:** Less than 1,025'



# Bureau of Reclamation Shortage Declaration

- Who is impacted? Central Arizona Agriculture, determined by priority water right
- Central Arizona growers (primarily Pinal County) are not CAP contractors but have been allowed to use excess water of contractors to help divert Arizona's full allocation of 2.8maf into the State
- "Pinal County irrigation districts will face up to 70% reductions in surface water supplies in 2022 and 100% reductions in 2023. The districts are intensely planning how best to deliver their remaining groundwater supplies but face challenges due to lack of adequate infrastructure and resistance from those who oppose increased groundwater pumping in the County. Significant amounts of farmland will need to be fallowed resulting in reduced farm revenues, jobs, equipment and seed purchases, and food and fiber production. This is the face of drought in the Lower Colorado River Basin." Paul Orme, Attorney

# CAP Priorities—Tier 1 Shortage



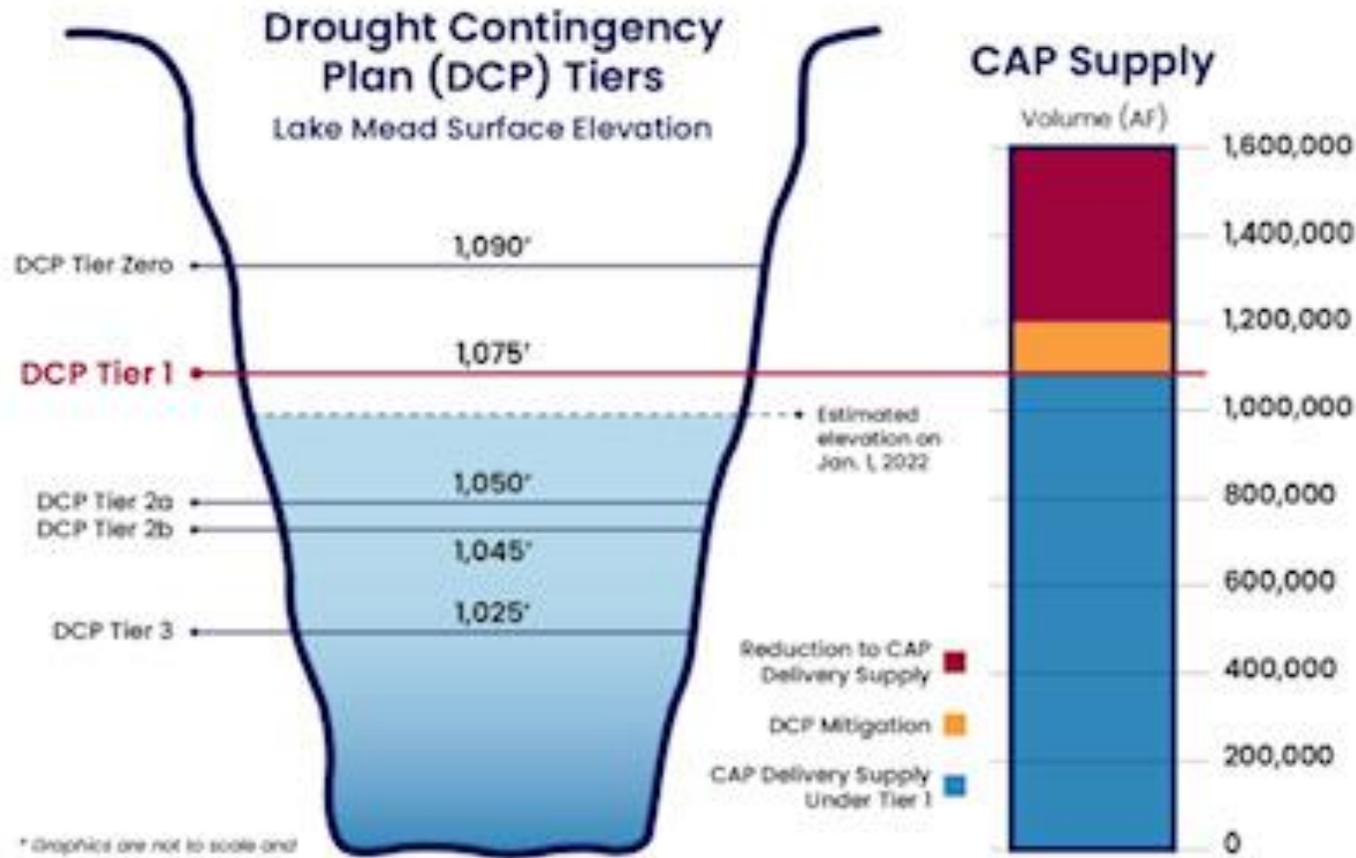
- 512,000 AF\* Reduction/Contribution
  - 320,000 AF per 2007 Guideline
  - 192,000 AF per LBDCCP
- Pre-Mitigation Impacts
  - 100% Reduction to Ag Pool
  - ~60% Reduction to NIA Pool

\* P3/6 reductions accounted for separately.

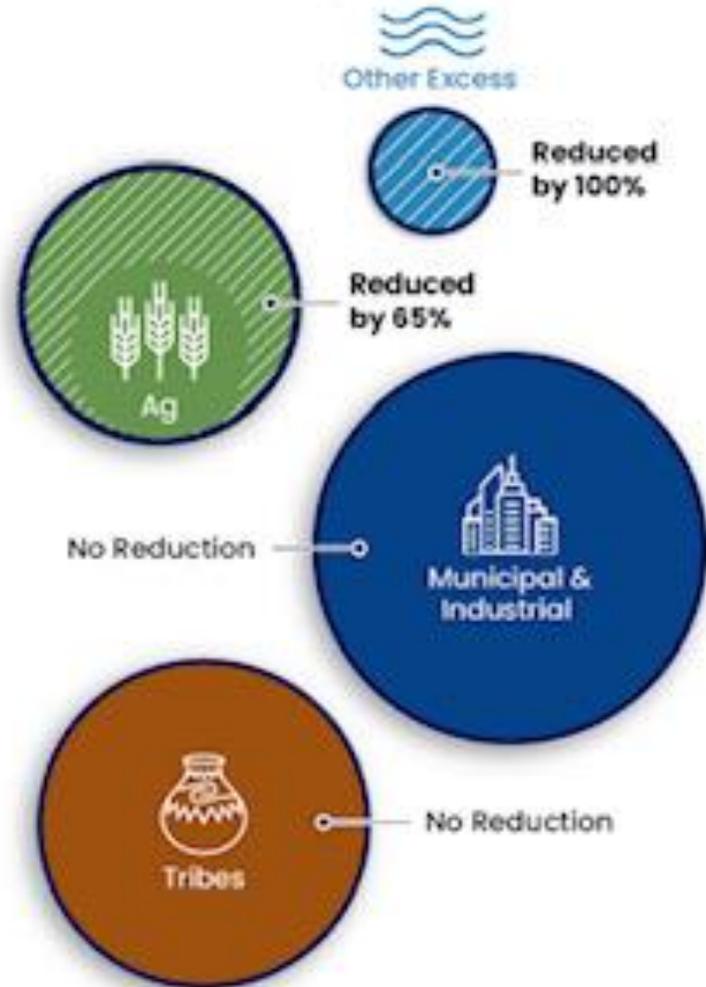


**Tier 1 shortage**=30% of Central Arizona Project normal supply; 18% of Arizona's Colorado River supply and less than 8% of Arizona's total water use

# Tier 1 Shortage: CAP Reductions



## 2022 Reduction to CAP Users After DCP Mitigation



To learn more, please visit: [www.cap-az.com/colorado-river-shortage](http://www.cap-az.com/colorado-river-shortage)

# Options to lessen drought impacts



Subcommittees: Desalination, Long-term Water Augmentation, Post 2025 AMA Committee, Non-AMA Groundwater Committee

State Legislature



(ARC)



# Federal Legislation

## Western Water Infrastructure Coalition, Water infrastructure funding



**Arizona Coalition Pushes for Investment in Aging Water Infrastructure**

















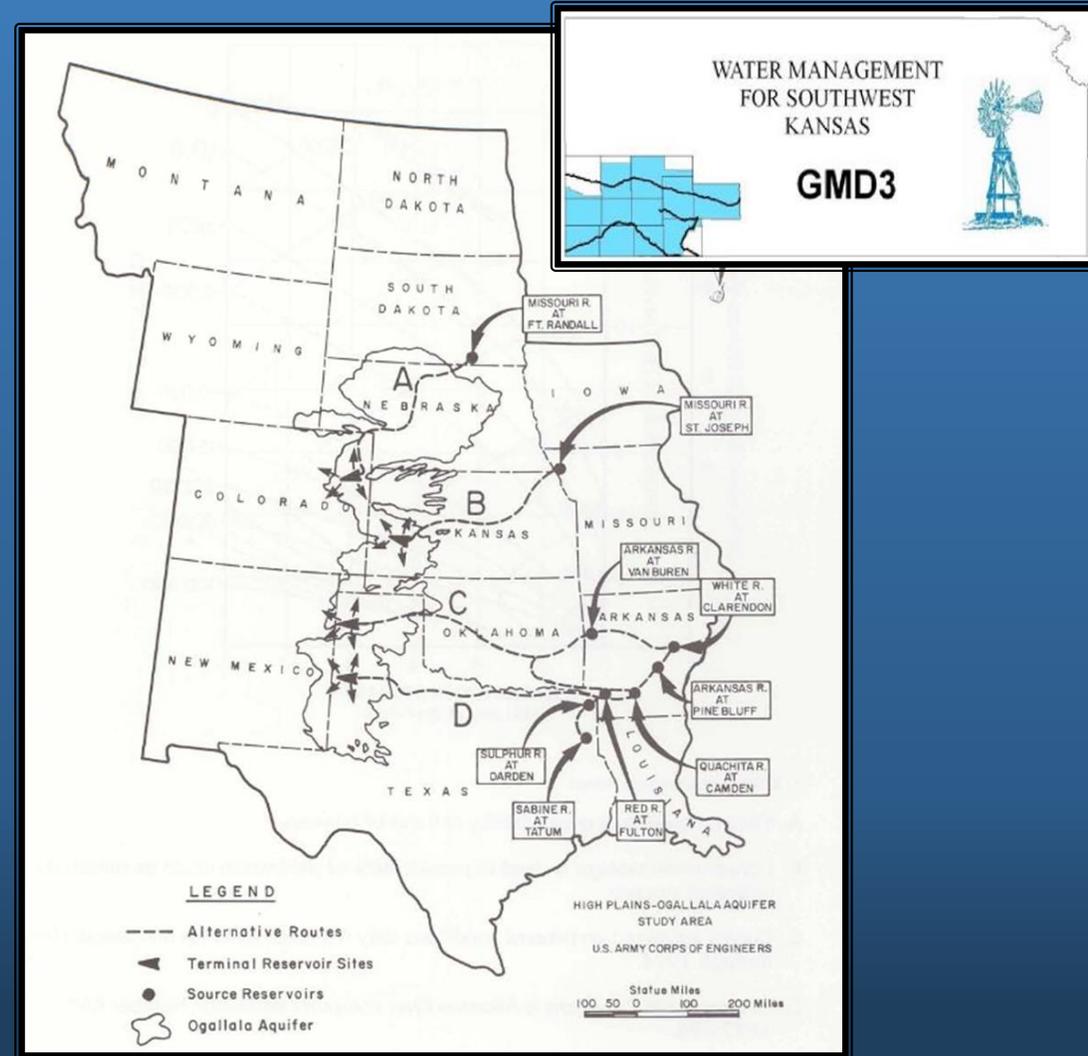




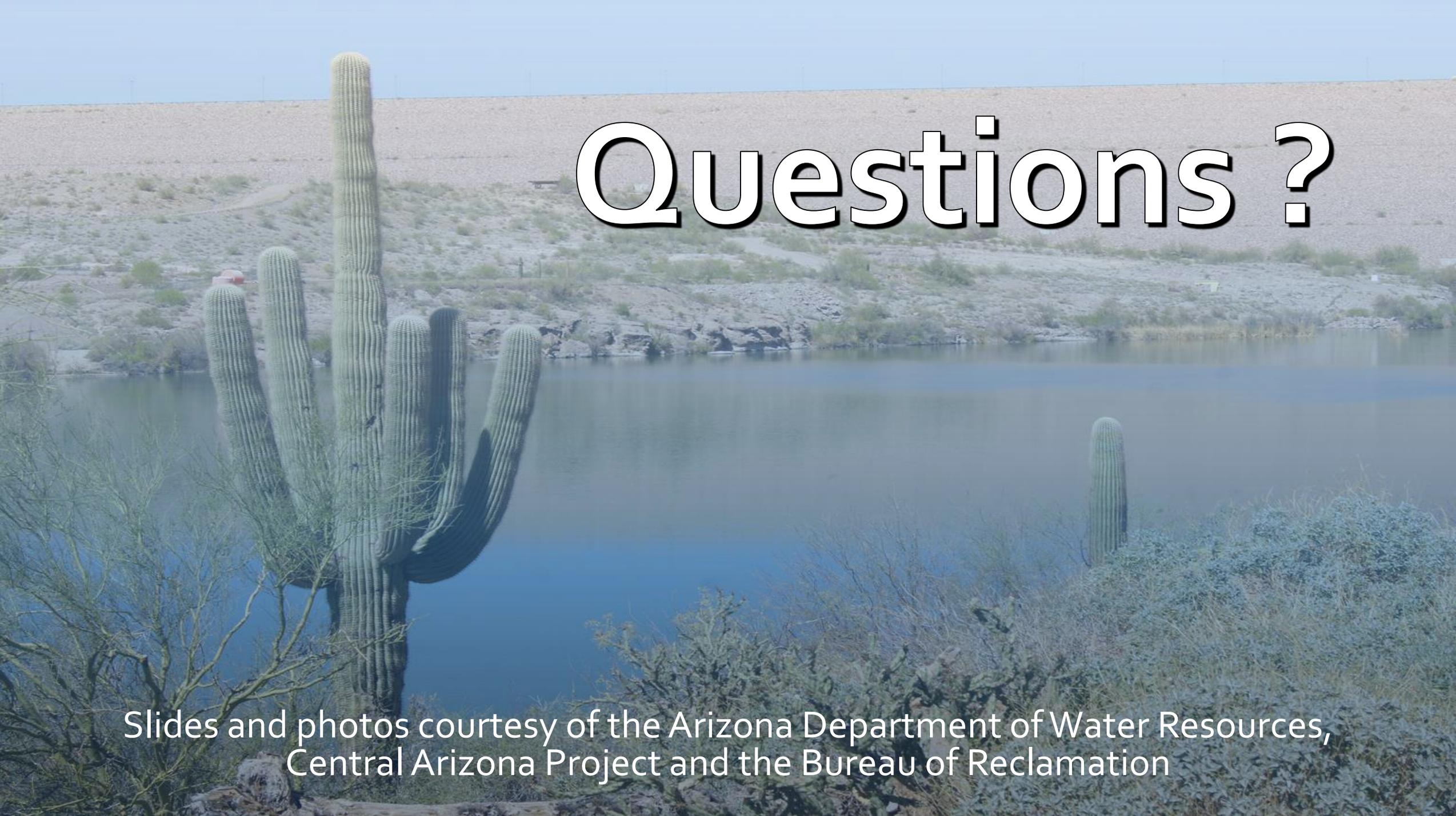
# Forest Health

USDA Funding for watershed enhancement

Collaborative efforts to look at moving eastern flood water westward



# Questions ?

A desert landscape featuring a large Saguaro cactus in the foreground, a body of water in the middle ground, and a large concrete dam in the background under a clear blue sky.

Slides and photos courtesy of the Arizona Department of Water Resources,  
Central Arizona Project and the Bureau of Reclamation



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