

Colorado River Shortage Briefing

Arizona's Plans in Action



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Arizona's Plans in Action

Arizona is prepared to address Colorado River shortage under the 2007 Shortage Sharing Guidelines

- *Arizona Water Banking Authority Firming*
- *Statewide Drought Plan*
- *Mandatory municipal provider drought response plans*

New Voluntary Reservoir Protection Efforts

- *Lower Basin Pilot Drought Response Actions MOU (LB MOU)*
- *Pilot System Conservation Program (PSCP)*

Arizona's Plans in Action

- Over the last two decades the Arizona Water Banking Authority has accrued approximately 3.4 MAF of credits for instate use in times of shortage.
- Another .6 MAF has been stored on behalf of *Nevada*.
- Arizona water users also have stored water supplies as a component of their water planning efforts.

Arizona Water Banking Authority

- Provides shortage protection for Arizona's On-River P4 municipal and industrial users of Colorado River water
- Assists the State in the settlement of Tribal water rights claims by firming portions of CAP supplies provided in settlements
- Provides firming for CAP M&I priority water supplies during shortages

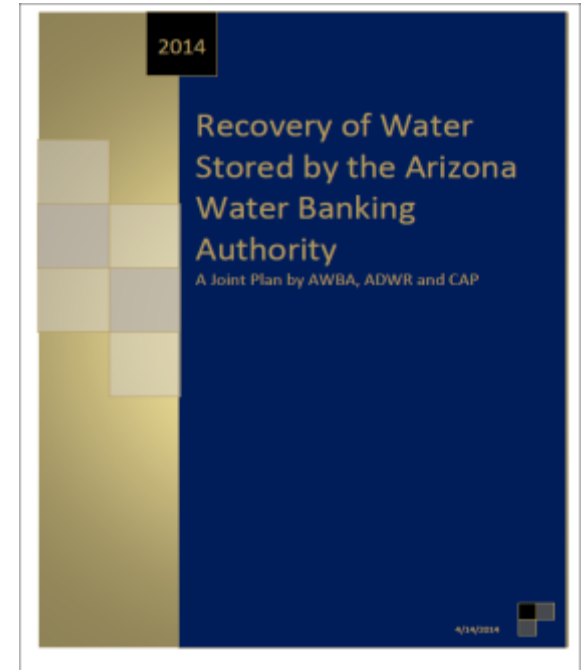
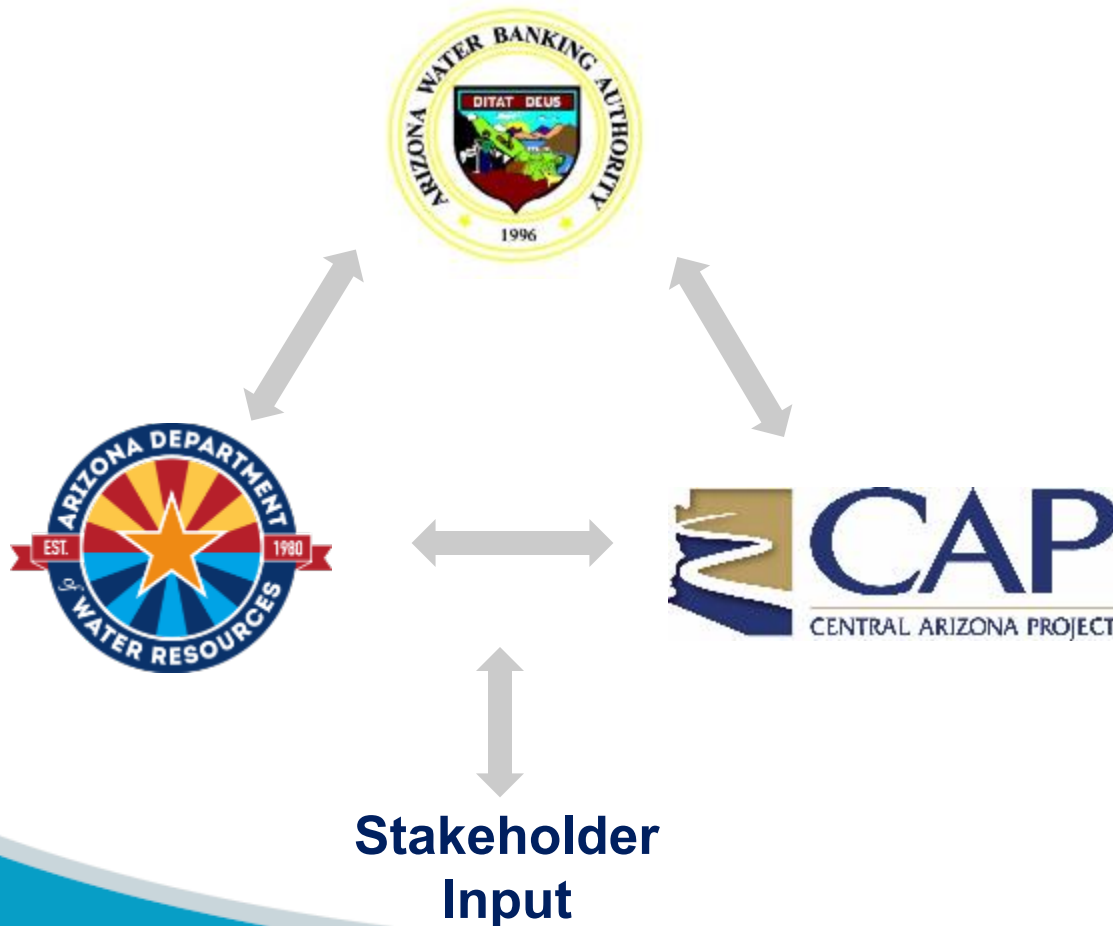


Recovery of AWBA Credits



- A firming requirement is triggered when reductions in Colorado River supplies impact deliveries to On-River P-4 water users and CAP for which the AWBA has a firming commitment
 - *On-River P4 uses*
 - *Indian Settlements*
 - *M&I Users*
- Based on current demand, it is unlikely that a Tier 1 shortage would require the AWBA to recover or distribute credits
- As demands increase over time that could change
- CAP is the AWBA's primary recovery agent

Preparing for Shortage & Recovery of AWBA Credits



Preparing for Shortage & Recovery of AWBA Credits

Central Arizona Project:

- Developing (with Reclamation) The CAP System Use Agreement
- Evaluating the development of recovery infrastructure at key sites
 - Ex: exploratory drilling at Tonopah Desert Recharge Project
- Exploring recovery opportunities and agreements with partners in each active management area (AMA)
 - Ex: Irrigation Districts, Municipal providers, Tribes
- Objective is to ensure there is sufficient capacity available in each AMA to meet future recovery needs



Preparing for Shortage & Recovery of AWBA Credits

Arizona Water Banking Authority:

- Developed firming arrangements with Gila River Indian Community
- Cooperation with CAP in the use of 4-cent funding to purchase credits at optimal locations
- Meeting the AWBA's firming responsibilities will require effective planning and continued coordination among everyone involved both on-River and throughout the AMAs



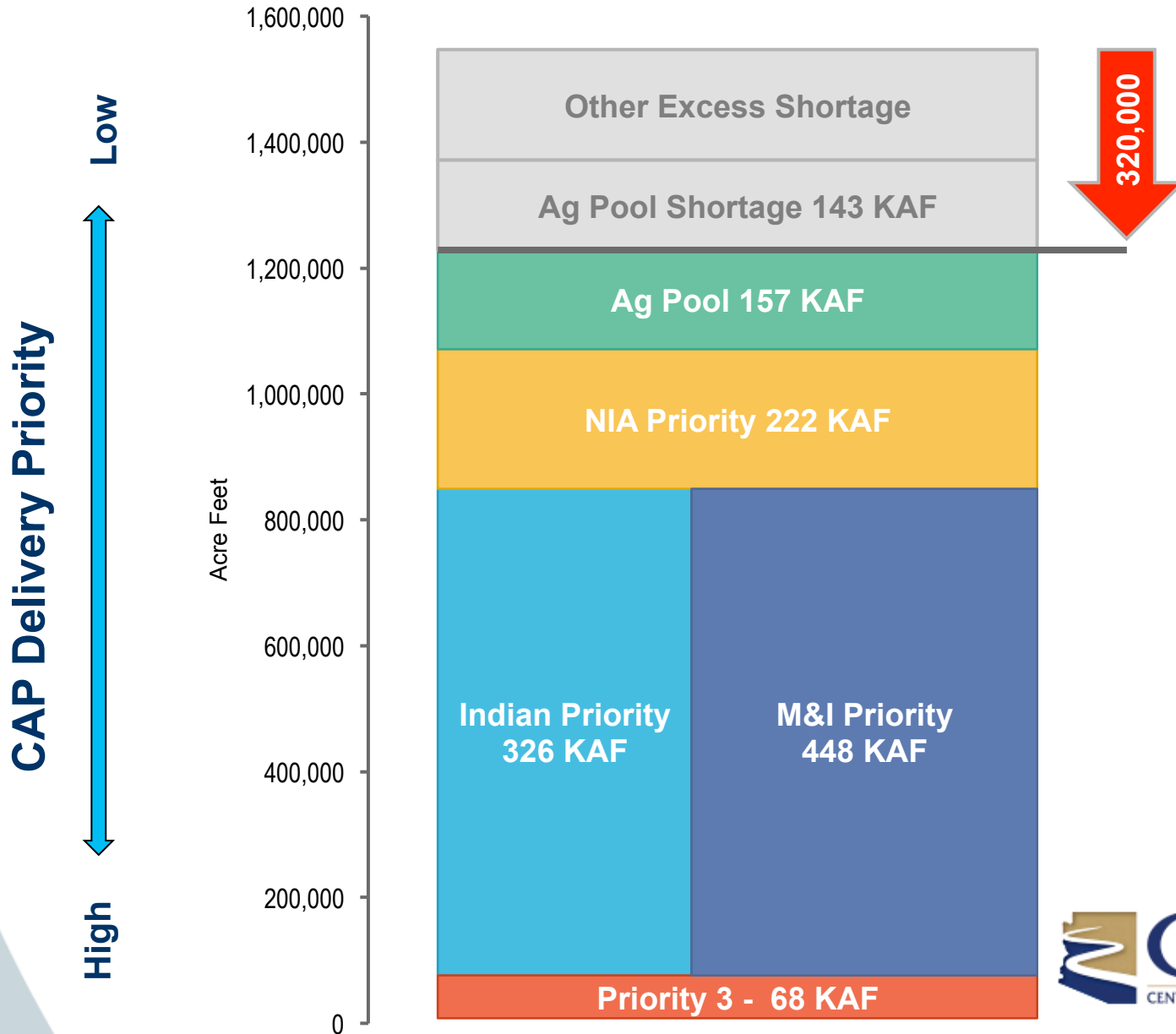
2007 Guidelines Shortage Sharing

- Arizona and Nevada share Lower Basin shortages under the 2007 Guidelines
- Mexico voluntarily agreed in Minute 319 to accept reductions in its deliveries at the same elevations

| Lake Mead Elevation | Arizona Reduction | Nevada Reduction | Mexico Reduction |
|---------------------|-------------------|------------------|------------------|
| 1075' | 320,000 AF | 13,000 AF | 50,000 AF |
| 1050' | 400,000 AF | 17,000 AF | 70,000 AF |
| 1025' | 480,000 AF | 20,000 AF | 125,000 AF |

- No additional reductions to California under '07 Guidelines

2007 Projected Tier 1 Shortage Impact



Colorado River Shortage Risk: Arizona/ CAP Cooperative Programs

- **Storage and Recovery**
 - 3.4 MAF of underground storage for future recovery for CAP cities, On-River communities, and Tribes
- **Lake Mead Reservoir Protection**
 - Interstate plan targeting 740 KAF of new storage in Lake Mead
 - CAP's share is 345 KAF by 2017
- **Innovative Conservation**
 - Interstate funding to conserve +75 KAF to protect Lake Mead/Powell
 - Conservation research grant program
- **Augmentation**
 - Weather modification projects in the Upper Basin
 - Local and binational desalination

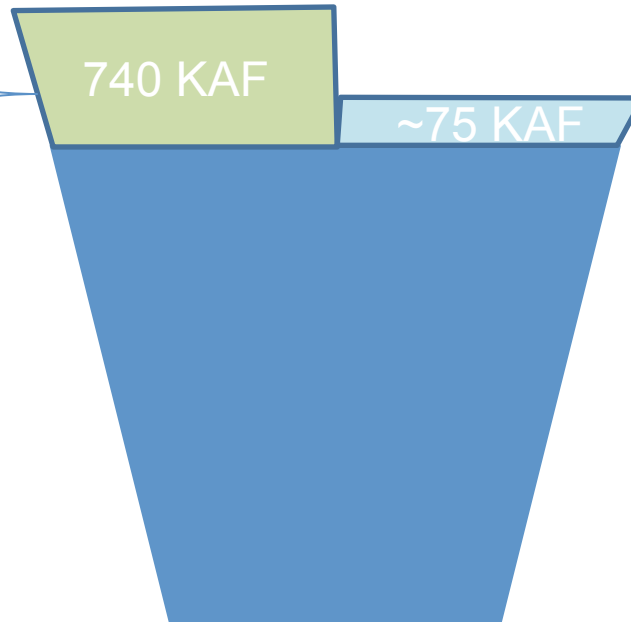
Lake Mead Protection Actions

2 Programs to Protect Lake Mead Elevations:

- **Lower Basin Pilot Drought Response Actions MOU (LB MOU)**
- **Pilot System Conservation Program (PSCP)**

LB MOU '14 – '17 Volumes:

CAP = 345 KAF
MWD = 300 KAF
BOR = 50 KAF
SNWA = 45 KAF



PSCP Phase 1 '15-'16:

Total funding = \$11 M
(\$8.25M LB/\$2.75M UB)
BOR = \$3M
CAP = \$2M
SNWA = \$2M
MWD = \$2M
Denver Water = \$2M

PSCP Phase 2 '16 –'17:

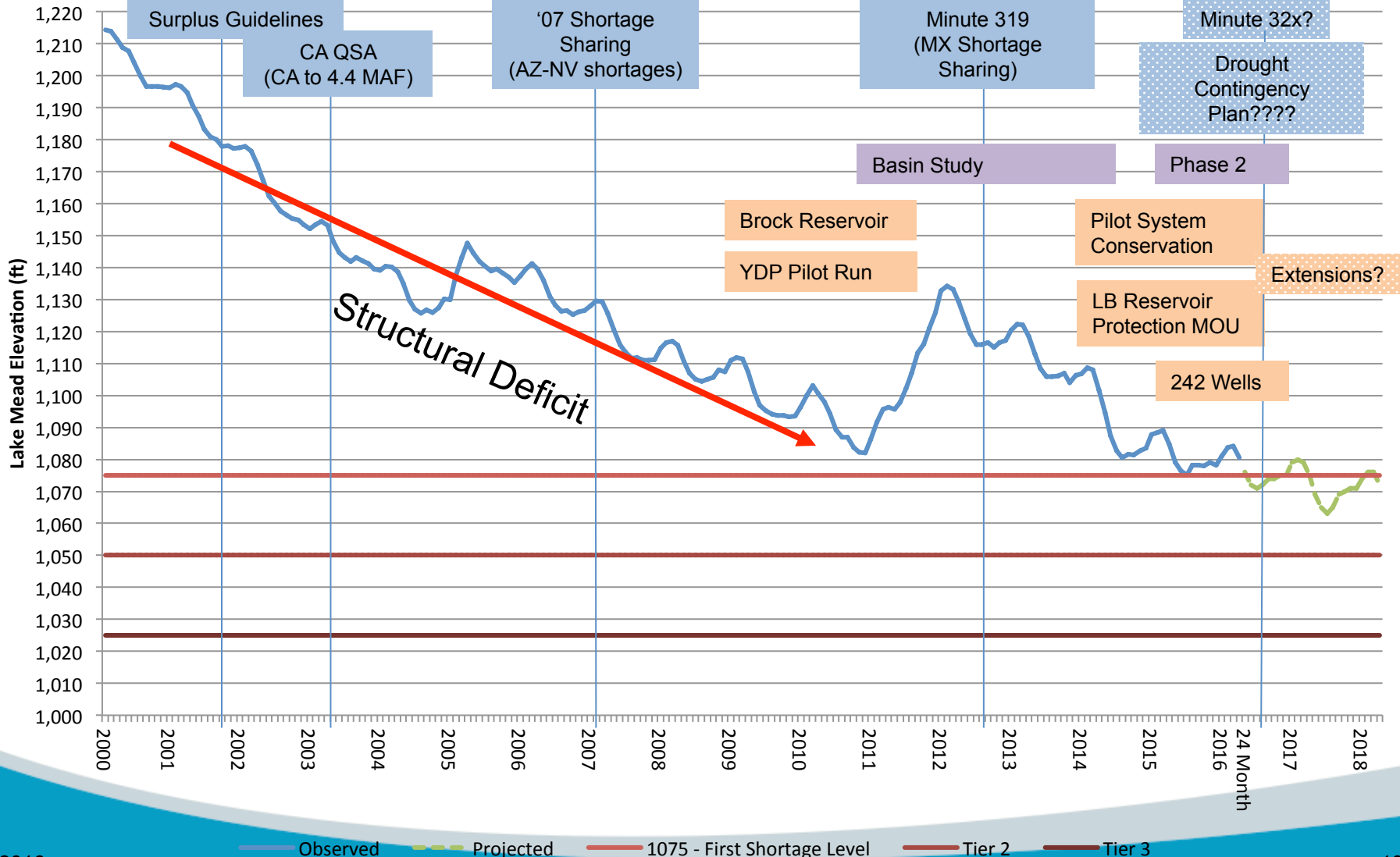
Total funding = \$7.5 M
(\$6.5 M LB/\$1.0M UB)
BOR = \$4M
CAP = \$1M
SNWA = \$1M
MWD = \$1M
Denver Water = tbd

Colorado River Interstate Agreements and Projects to Address Declining Reservoir Elevations



Lake Mead Elevation (EOM Jan 2000 – March '16 and Projected 24 Months)

AWBA 1996 – P



Lake Mead Protection Progress



- CAP's MOU target of 345 kaf will be completed by the end of 2016
- BOR and SNWA will have conserved more than 44 kaf of their MOU target by the end of 2016
- CAP with its Lower Basin PSCP partners will have conserved more than 50 kaf by the end of 2016
- The combined efforts will put more than 435 kaf by the end of 2016 or 5.5' in Lake Mead
- ❖ Mexico has a current balance of about 230,000 acre-feet of conservation storage in Lake Mead – another 3ft

Reservoir Protection Facts

- Our collective efforts with the PSCP & MOU kept us out of Shortage in 2016 and will likely keep us out in 2017
- Extending those efforts will be needed to keep us out of Shortage in 2018
- What we have learned makes it clear that more is needed for long-term sustainability

Questions



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