

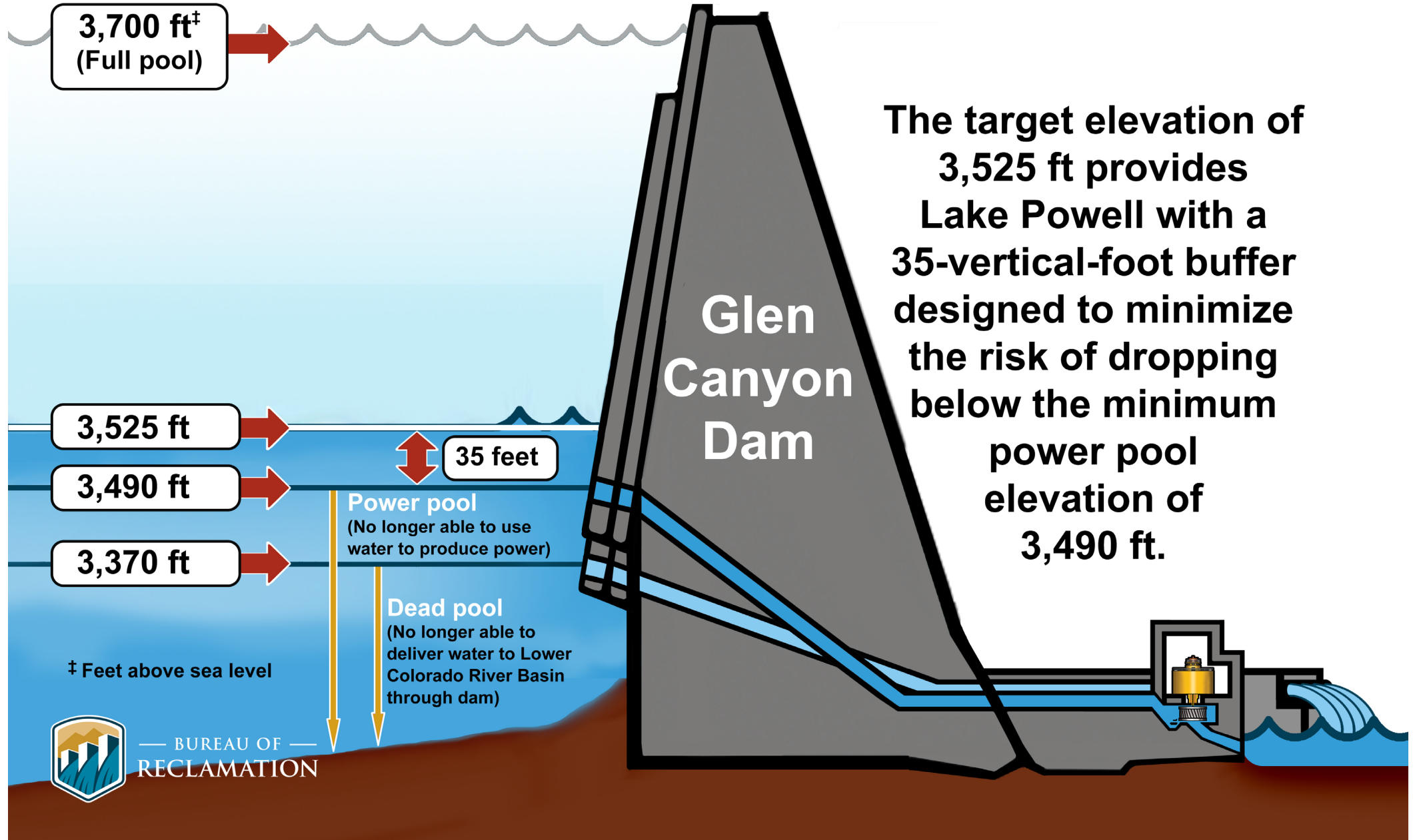


CAP Water Supply Outlook 2023

Patrick Dent
Assistant General Manager, Water Policy
September 29, 2022

YOUR WATER. YOUR FUTURE.

Lake Powell



The target elevation of 3,525 ft provides Lake Powell with a 35-vertical-foot buffer designed to minimize the risk of dropping below the minimum power pool elevation of 3,490 ft.

3,700 ft[‡]
(Full pool)

3,525 ft

3,490 ft

3,370 ft

35 feet

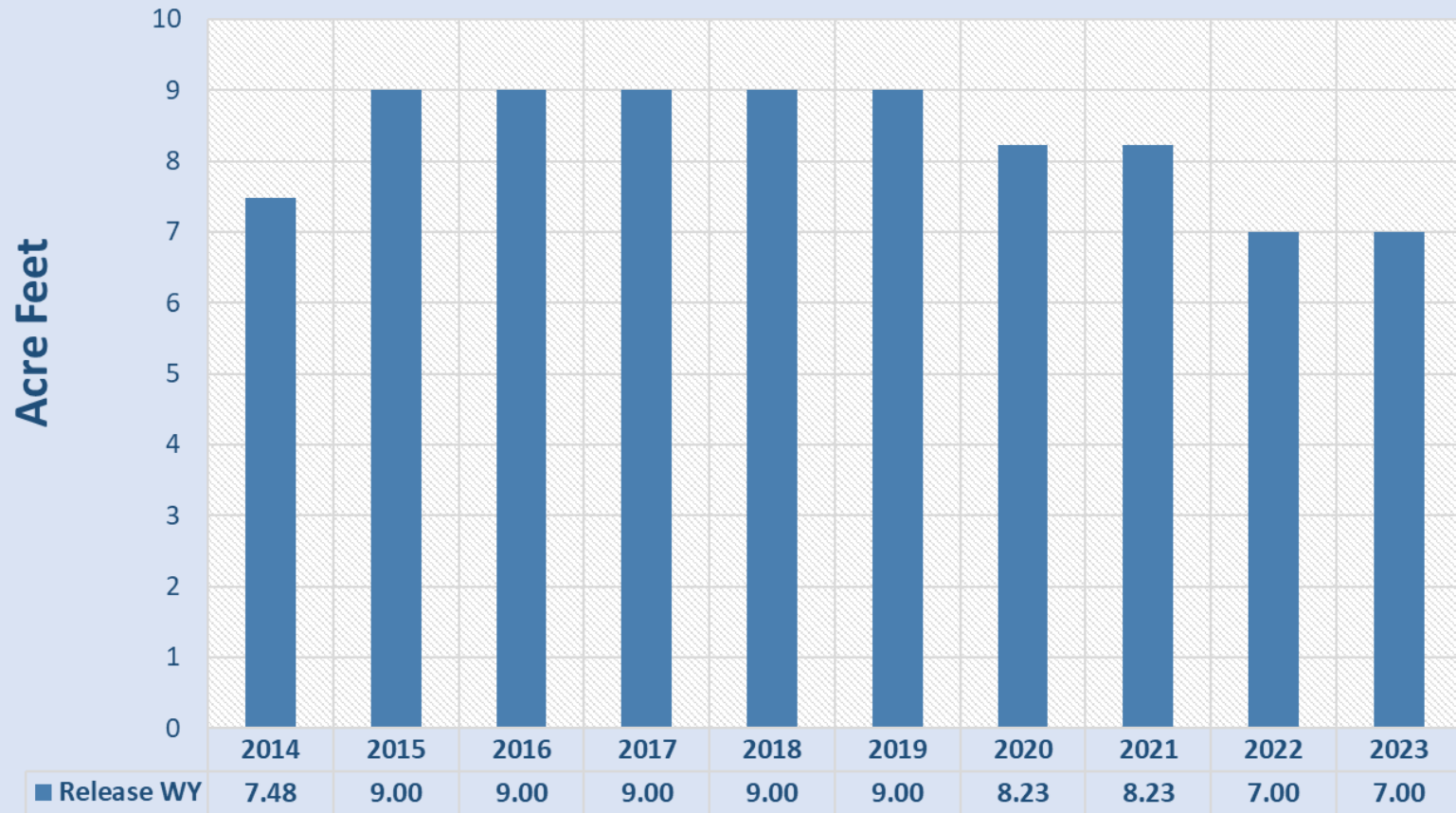
Power pool
(No longer able to use water to produce power)

Dead pool
(No longer able to deliver water to Lower Colorado River Basin through dam)

‡ Feet above sea level

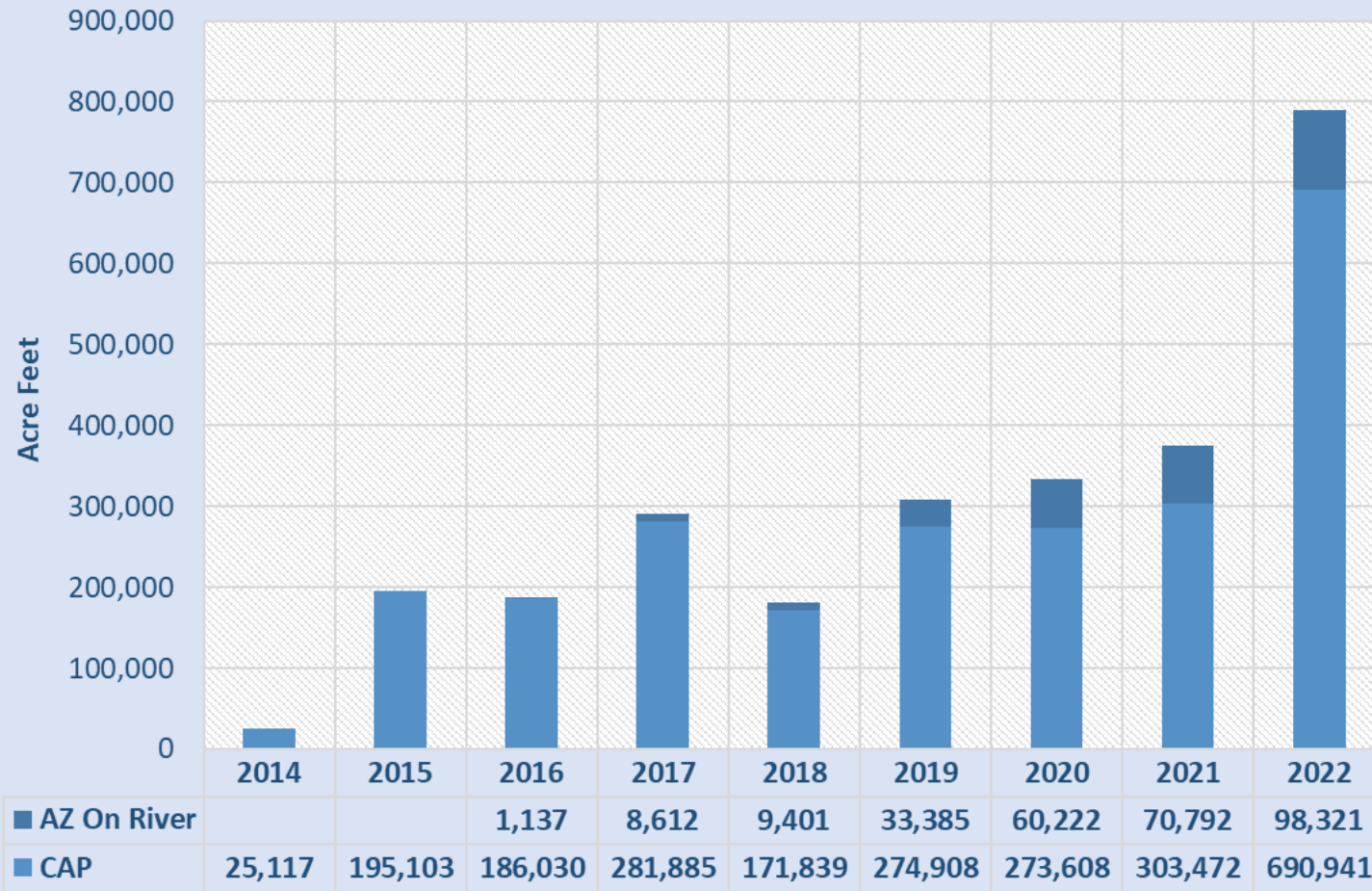


Glen Canyon Dam - Water Year Releases From Lake Powell (2014 - 2023*)



*Projected for 2023 - 24-Month Study min and most probable

Arizona Water Conserved in Lake Mead



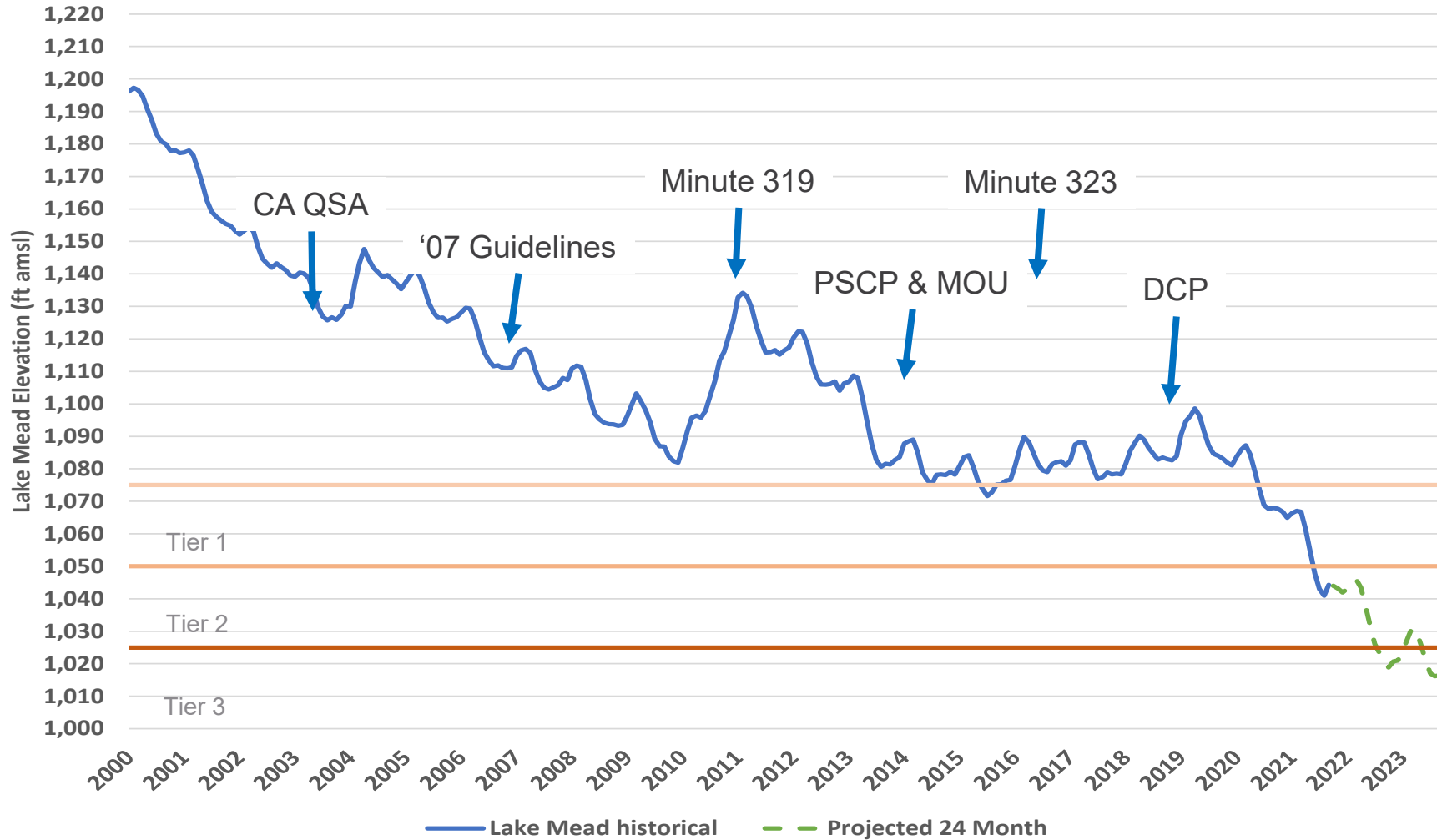
Volumes include reductions required by Interim Guidelines and the 2019 Drought Contingency Plan - 2022 Volumes are Estimates

Arizona Colorado River Water Conserved in Lake Mead

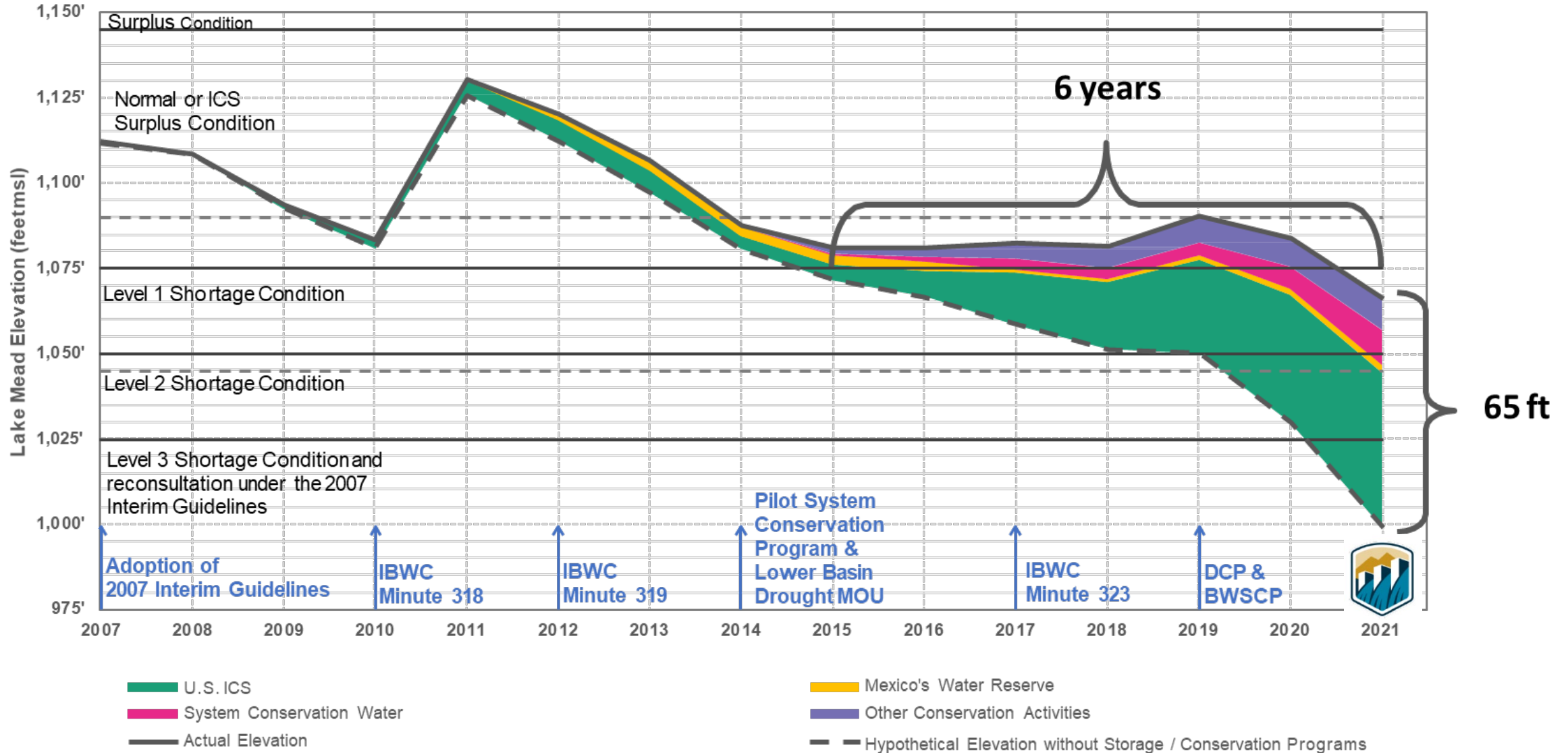
Includes

- 2007 Guidelines
- DCP Contributions
- ICS Creation
- Voluntary System Conservation Programs

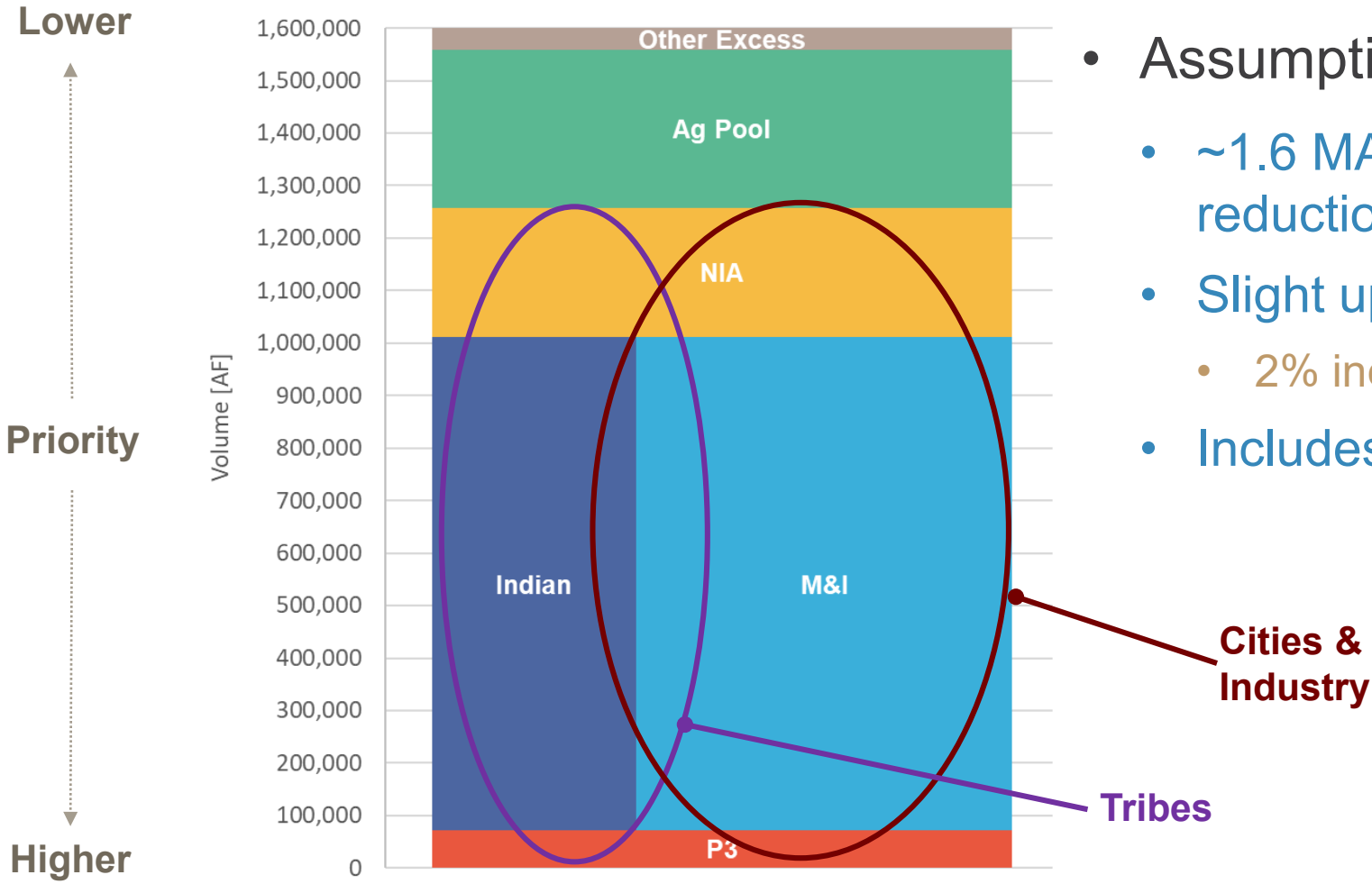
Lake Mead Elevation
 (EOM Jan 2000 - Aug 2022 and Projected 24 Months)



Lake Mead Storage and Conservation



CAP Priorities – Full Supply



- Assumptions for 2023:
 - ~1.6 MAF of delivery supply prior to reductions (2007 guidelines and LBDCP)
 - Slight uptick in orders compared to 2022
 - 2% increase in M&I orders
 - Includes NIA Reallocation parties

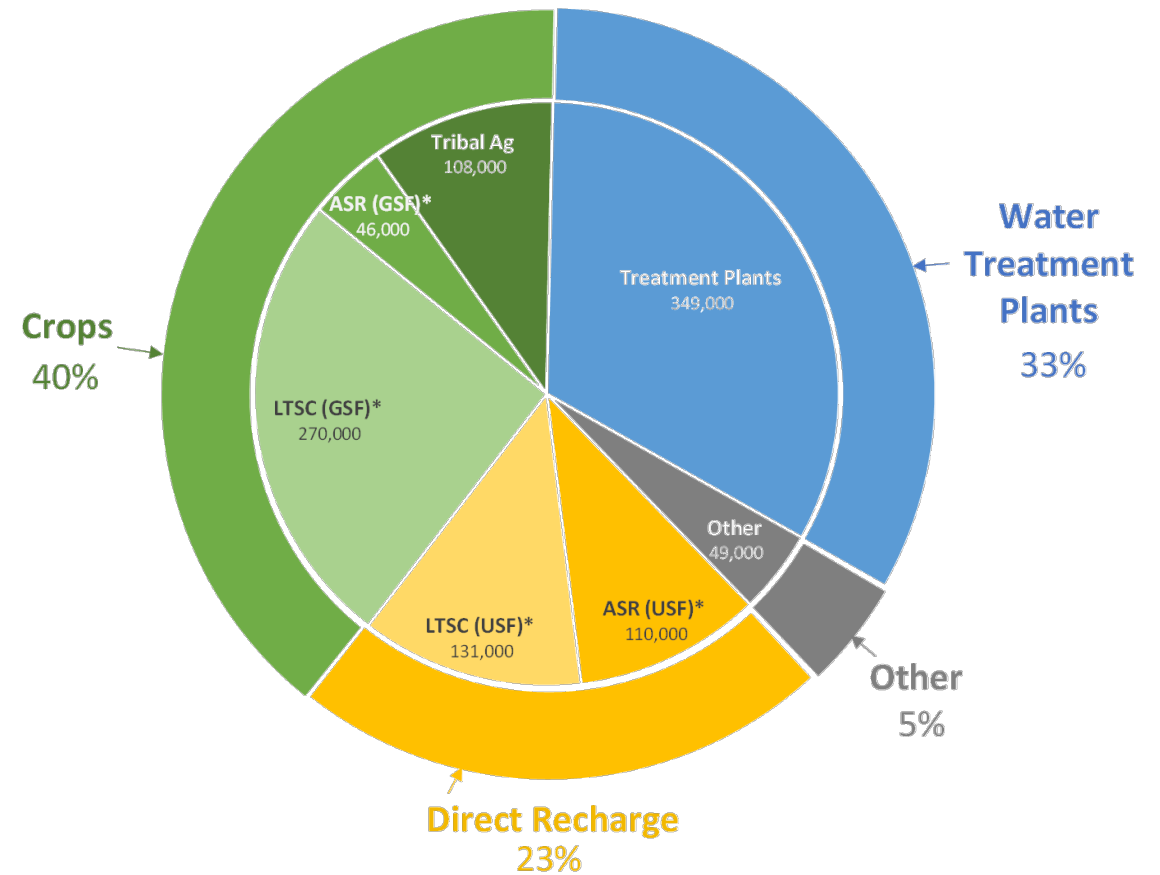
CAP Water Uses

- There is a very large range in size of Indian and M&I priority entitlements:
 - Largest: 191,200 AF (Gila River Indian Community)
 - Smallest: 64 AF (Water Utility of Greater Tonopah)
- Indian priority water has been fully ordered and used in recent years
 - ~40% of the Indian priority supply is leased to, or exchanged with, M&I water users
 - Most leases are long-term
- Almost all M&I subcontractors have been ordering and using their full entitlements

CAP Water Use

- There is a diversity of end-uses: water treatment plants, annual storage & recovery, long-term storage credit accrual, mining, and some direct use by turf facilities and cooling towers
 - All uses are beneficial
 - All uses are compliant with contract and subcontract terms
- All users are impacted by shortage, though the specific impacts vary

Estimated 2023 Water Uses, by Destination and Type



*The split between Annual Storage & Recovery versus LTSC accrual is an estimate based on recent history and projections

2007 Interim Guidelines, Minute 323, Lower Basin Drought Contingency Plan, and Binational Water Scarcity Contingency Plan

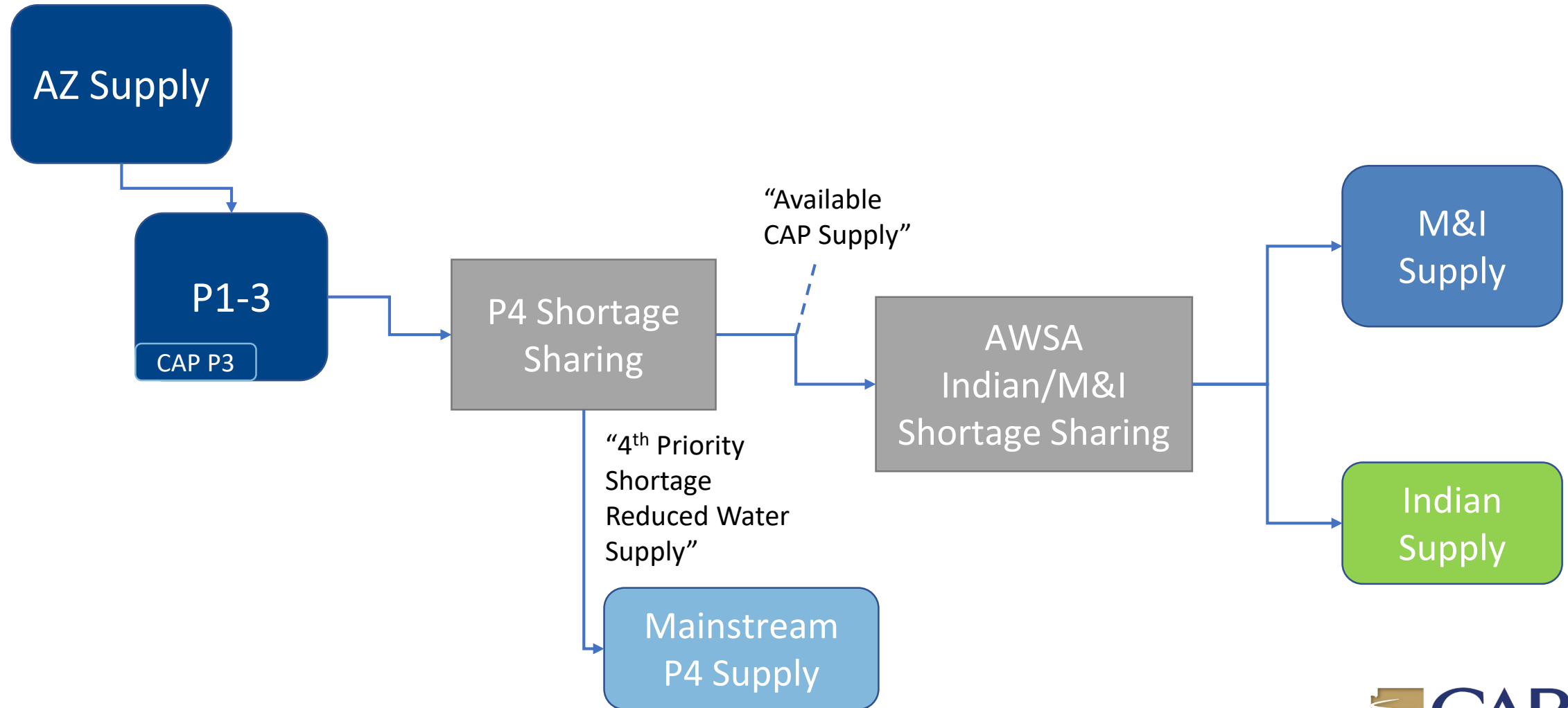
Total Volumes (kaf)

Lake Mead Elevation (feet msl)	2007 Interim Guidelines Shortages		Minute 323 Delivery Reductions	Total Combined Reductions	DCP Water Savings Contributions			Binational Water Scarcity Contingency Plan Savings	Combined Volumes by Country <i>US: (2007 Interim Guidelines Shortages + DCP Contributions)</i> <i>Mexico: (Minute 323 Delivery Reductions + Binational Water Scarcity Contingency Plan Savings)</i>					Total Combined Volumes
	AZ	NV	Mexico	<i>Lower Basin States + Mexico</i>	AZ	NV	CA	Mexico	AZ Total	NV Total	CA Total	<i>Lower Basin States Total</i>	<i>Mexico Total</i>	<i>Lower Basin States + Mexico</i>
1,090 - 1,075	0	0	0	0	192	8	0	41	192	8	0	200	41	241
1,075 - 1050	320	13	50	383	192	8	0	30	512	21	0	533	80	613
1,050 - 1,045	400	17	70	487	192	8	0	34	592	25	0	617	104	721
1,045 - 1,040	400	17	70	487	240	10	200	76	640	27	200	867	146	1,013
1,040 - 1,035	400	17	70	487	240	10	250	84	640	27	250	917	154	1,071
1,035 - 1,030	400	17	70	487	240	10	300	92	640	27	300	967	162	1,129
1,030 - 1,025	400	17	70	487	240	10	350	101	640	27	350	1,017	171	1,188
<1,025	480	20	125	625	240	10	350	150	720	30	350	1,100	275	1,375

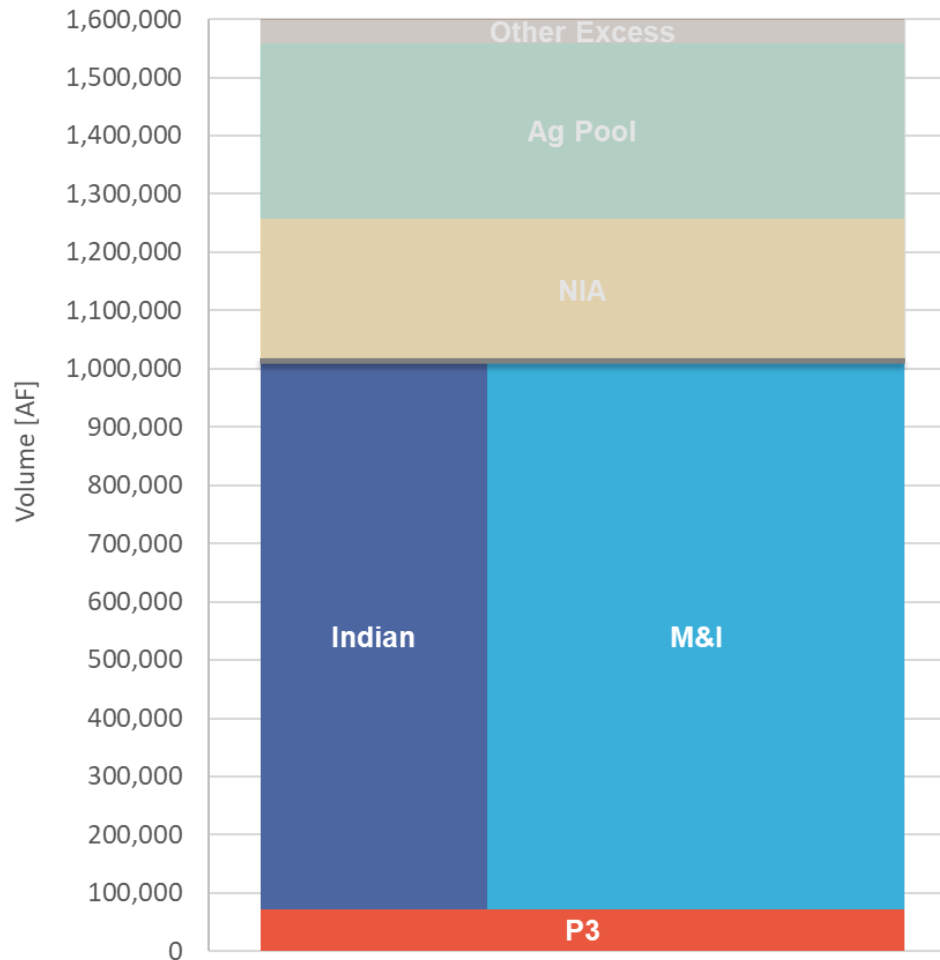
➔
2023 Reductions + Contributions

←
2023 Reductions + Contributions

Shortage Sharing Within Arizona



2023 Pre-Mitigation Shortage Impact



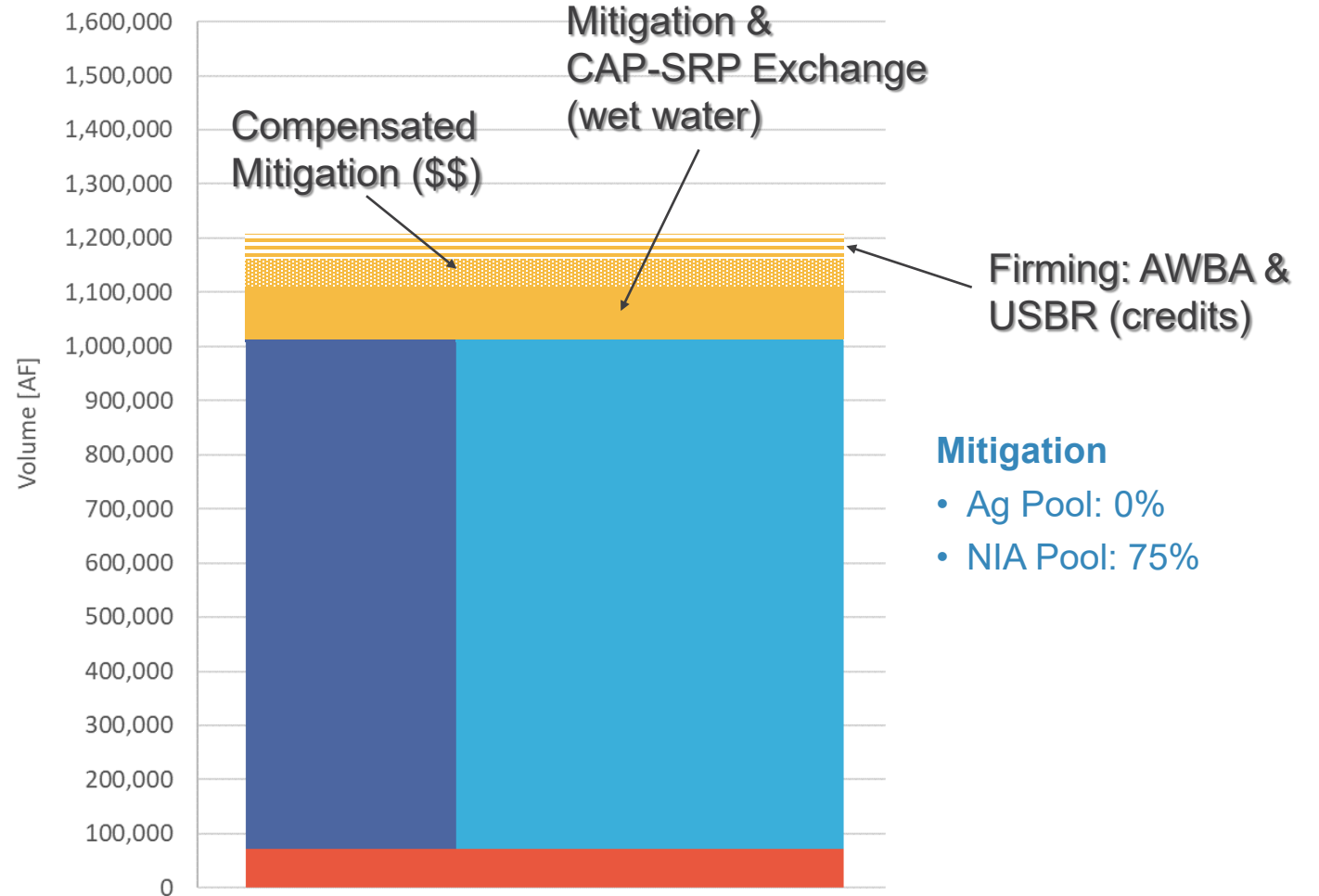
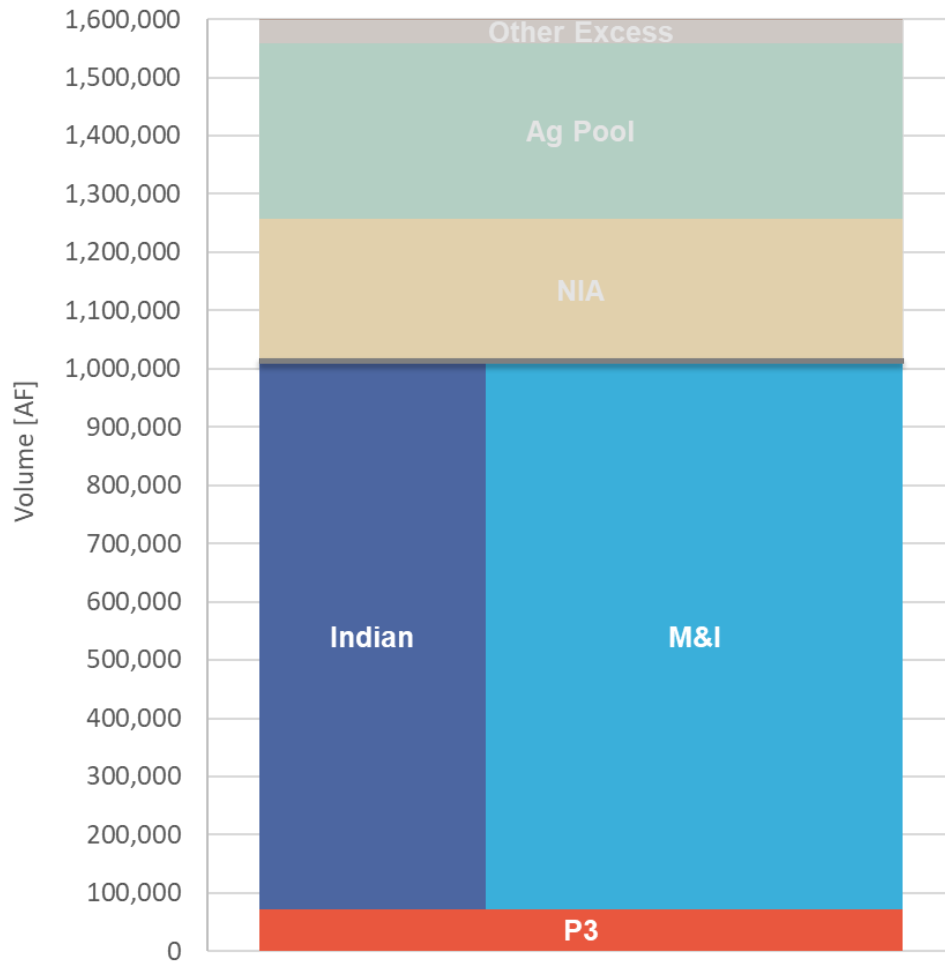
- Current projections indicate the likelihood of Tier 2a in 2023
 - 1050' <= Mead Elevation > 1045'
- **Tier 2a** shortage volume = 592 KAF
 - 400 KAF per 2007 Guidelines
 - 192 KAF per LBDCCP
 - +80 KAF compared to 2022 (Tier 1)
- Pre-mitigation pool level impacts:
 - 100% reduction to Ag Pool
 - 100% reduction to NIA Pool
 - No reduction to Indian and M&I Pools

AZDCP Mitigation Commitments - 2023

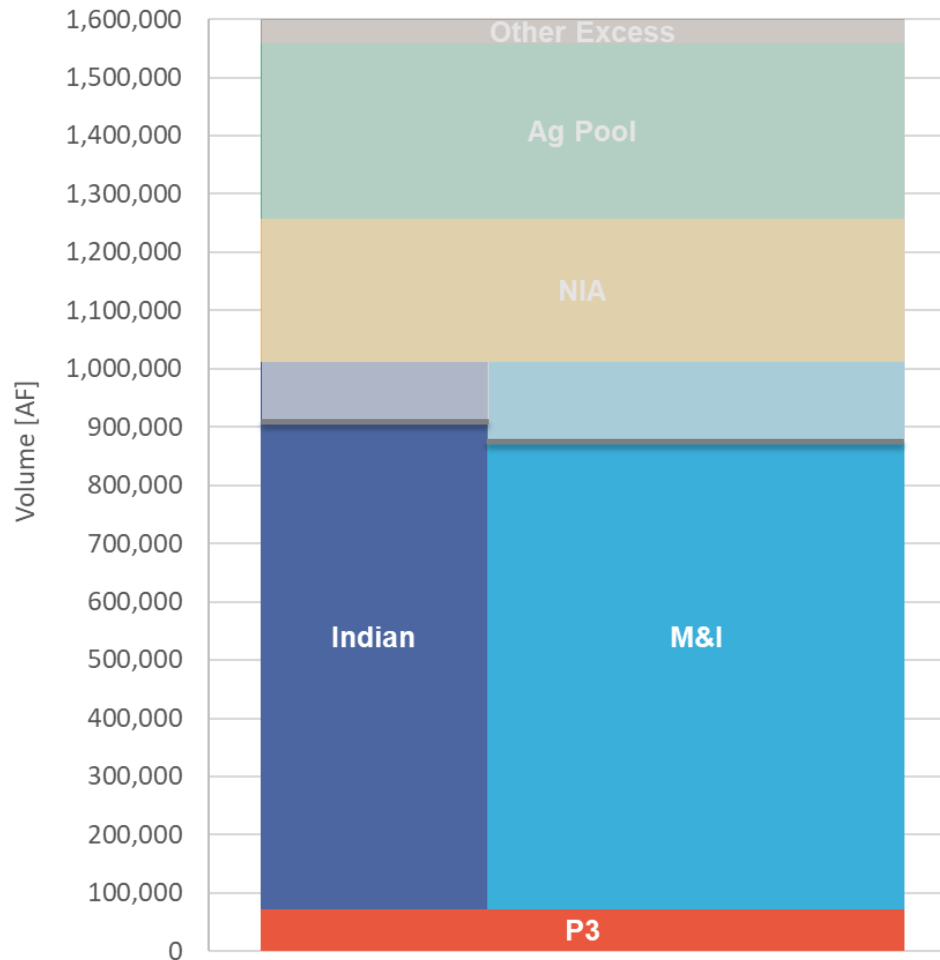
	2020	2021	2022	2023	2024	2025	2026
Ag Pool Parties	105 KAF - Tier 1			No CAP Wet Water Mitigation			
	70 KAF - Tiers 2a/2b			Groundwater Infrastructure Program 70 KAF / Yr			
			GW 16.5K				
NIA Contractors & Subcontractors	100% Tiers 1/2a/2b			75%* - Tiers 1/2a			No Mitigation 2026 or Tier 3
	50%* - Tier 2b						

Mitigation Resources: Credits, Wet Water and Money

2023 – Tier 2a Shortage w/ Mitigation



Impact of Near-Term Tier 3 Shortages

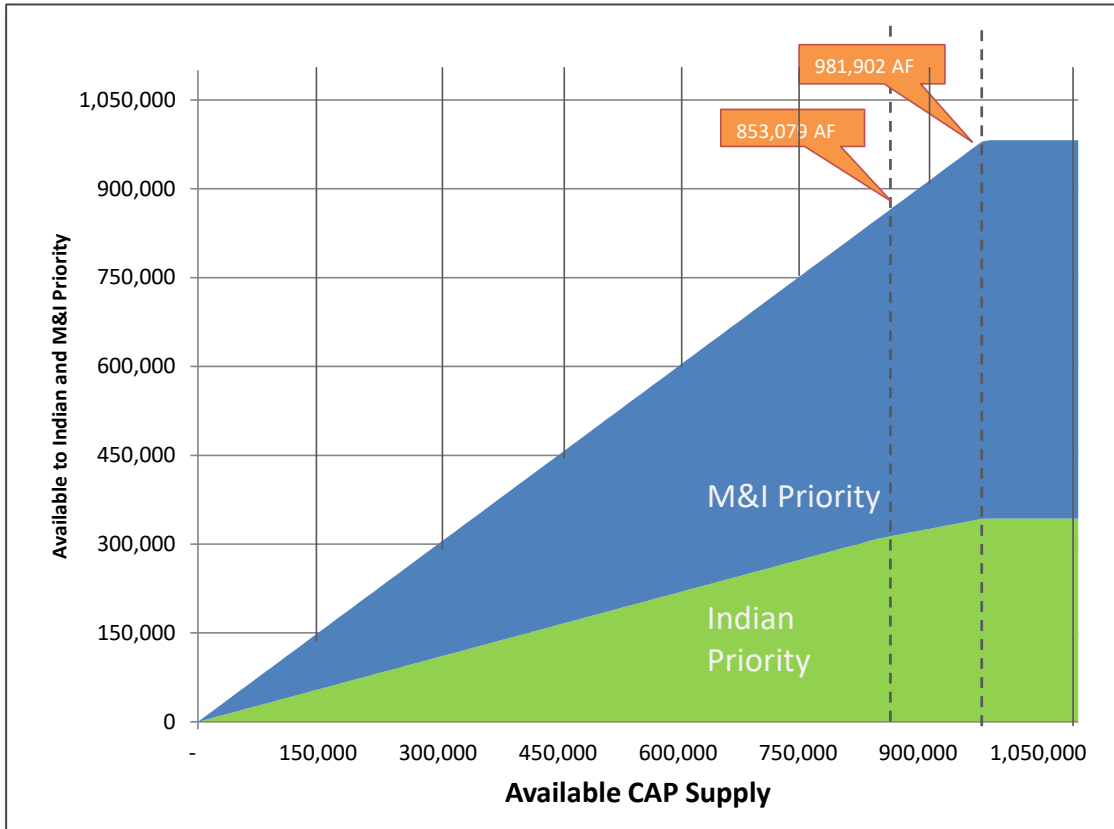


- **Tier 3** shortage volume = 720 KAF
- No Mitigation under Tier 3 shortage
- Pool level impacts*:
 - 100% reduction to Ag Pool
 - 100% reduction to NIA Pool
 - 11% reduction to Indian Pool
 - 15% reduction to M&I Pool
 - 100% of M&I shortage is firmed by the Arizona Water Banking Authority (AWBA) through 2026

* Using 2023 order estimations

Impacts Under Deeper CAP Reductions

AWSA Indian/M&I Shortage Sharing



Distribution of 4th Priority CAP Delivery Supply Based on AWSA Formula and Estimated 2023 Water Orders*

Delivery Supply [AF]	Indian Priority		M&I Priority	
	Pool Availability	Pool Size [AF]	Pool Availability	Pool Size [AF]
500,000	47%	157,000	45%	274,600
400,000	36%	120,600	35%	211,000
300,000	25%	84,200	24%	147,400
200,000	14%	47,900	14%	83,700
100,000	4%	11,500	3%	20,100



ECONOMIC IMPACT OF COLORADO RIVER WATER DELIVERED BY CAP TO ARIZONA FACT SHEET

**\$2
TRILLION**

The Colorado River water **CENTRAL ARIZONA PROJECT (CAP)** delivers has supported Arizona's gross state product (GSP) with \$2 trillion in economic benefits since water deliveries began. The GSP represents the dollar value of all goods and services produced in the region and is a measurement of the economic output of a state. This economic impact supports 22 sectors of the Arizona economy related to gross state product and job-years of employment.

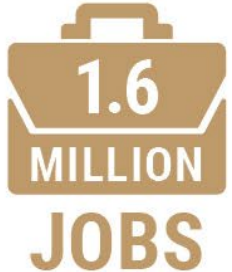
IN RECENT YEARS

Colorado River water delivered by CAP has supported an economic benefit exceeding

\$100 BILLION PER YEAR



ARIZONA'S GROSS STATE PRODUCT



CAP's supply of water to its customers in **2017** is estimated at annual employment of nearly **1.6 MILLION JOBS.**

For more information:

- CAP's news site – [KnowYourWaterNews.com](https://www.knowyourwaternews.com)
- CAP's main website (with information on the Drought Contingency Plan and Arizona Reconsultation Committee) – [CentralArizonaProject.com](https://www.centralarizona.com) (search shortage)

Other resources:

- Arizona Department of Water Resources -- [new.azwater.gov](https://www.new.azwater.gov)
- US Bureau of Reclamation – [usbr.gov](https://www.usbr.gov)

