Joint Colorado River Shortage Preparedness Briefing

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April 29, 2021

SHORTAGE PREPAREDNESS BRIEFING

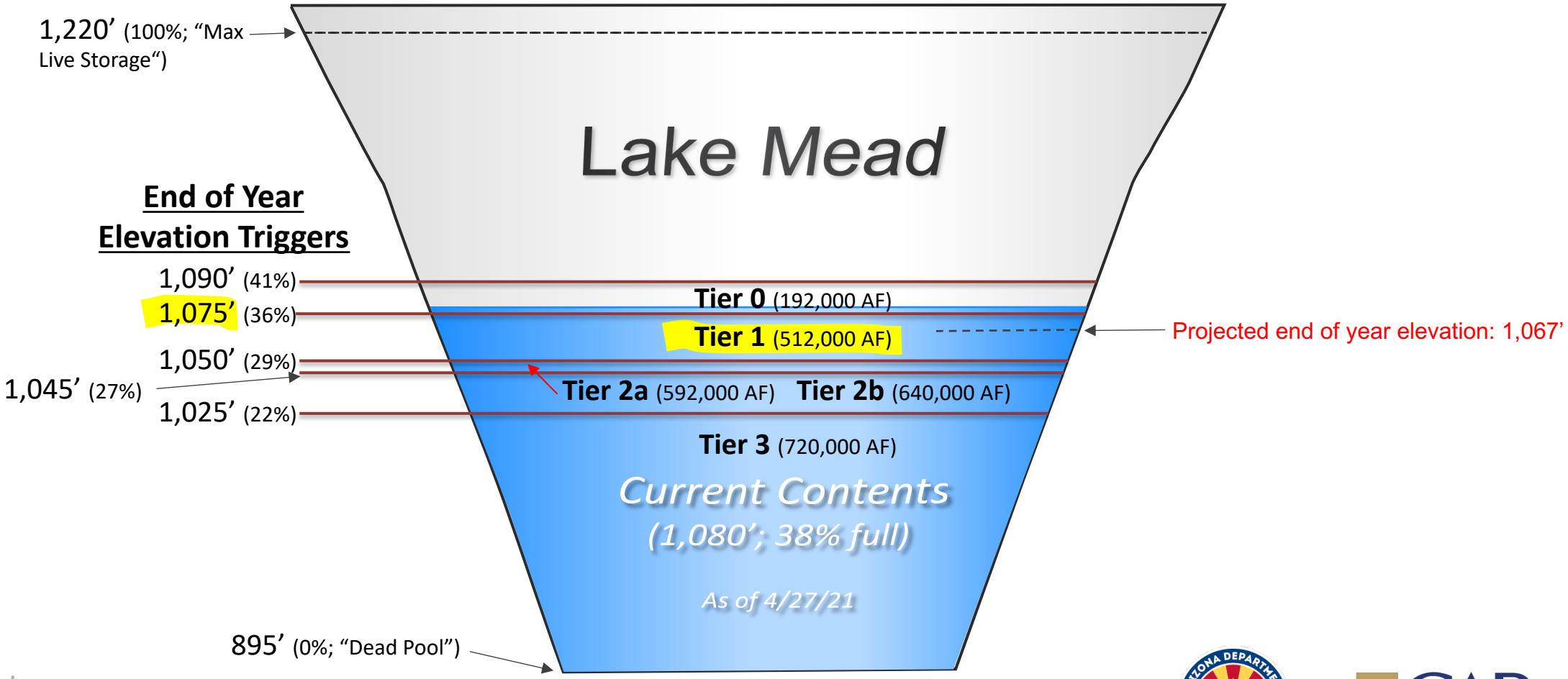
Agenda

- Purpose
- Colorado River Basin Current Conditions and Operational Update
- Arizona's Drought Contingency Implementation Plan
- Impacts of Shortage on CAP Water Supplies
- Next Steps
- Questions
- Closing Remarks

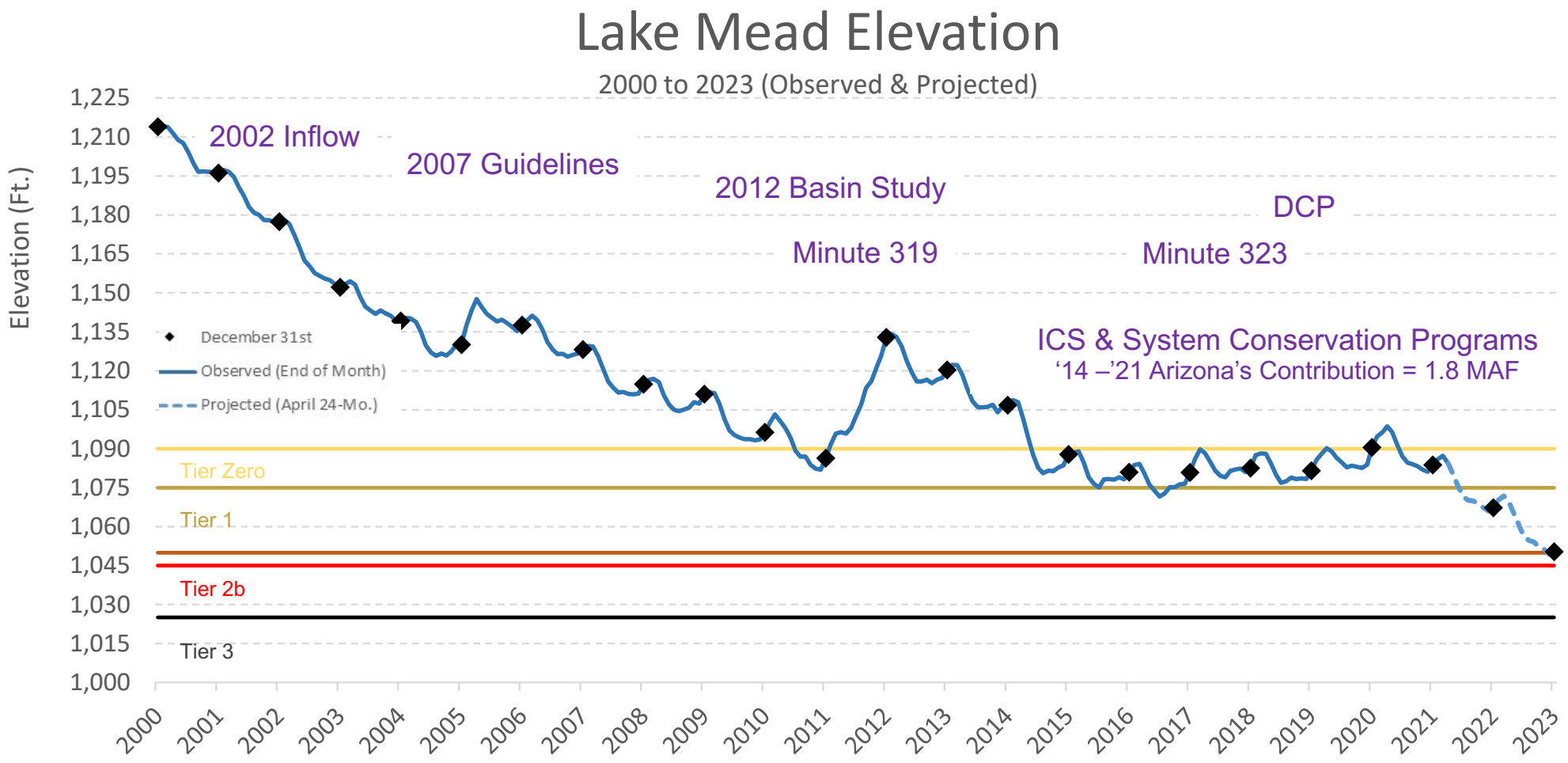
Meeting Logistics

- Electronic public comment forms are available for anyone wishing to submit a comment or question during the meeting
  - **www.cap-az.com/shortagefeedback**
- Submissions will be addressed during the questions period at the end of the meeting.
- Meeting material will be posted on the ADWR and CAP pages
  - **new.azwater.gov**
  - **www.cap-az.com**

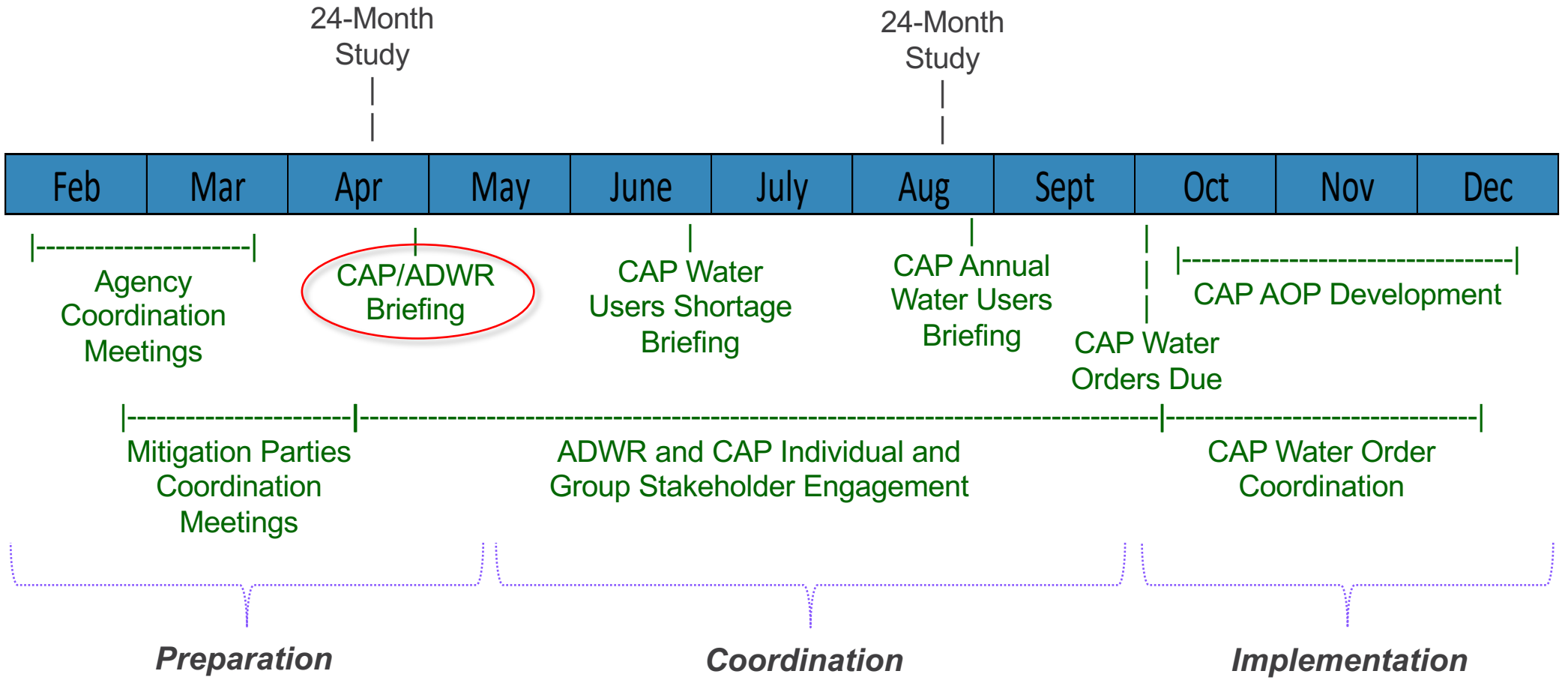
Lake Mead Status and Shortage Triggers



20 Years of Shortage Preparation



Preparation for Potential 2022 Shortage: Arizona's 2021 Activities



BUREAU OF RECLAMATION

Colorado River Basin
Current Conditions and Operational Update

Daniel Bunk

Chief, Boulder Canyon Operations Office

Bureau of Reclamation, Interior Region 8

Arizona Shortage Preparedness Briefing

April 29, 2021

Colorado River Basin Storage

as of April 26, 2021

Reservoir	Percent Full	Storage (maf)	Elevation (feet)
Lake Powell	35%	8.56	3,563
Lake Mead	38%	10.1	1,080
Total System Storage	43%	25.7	NA

Total system storage was 52% of capacity, with 30.7 maf in storage, this time last year

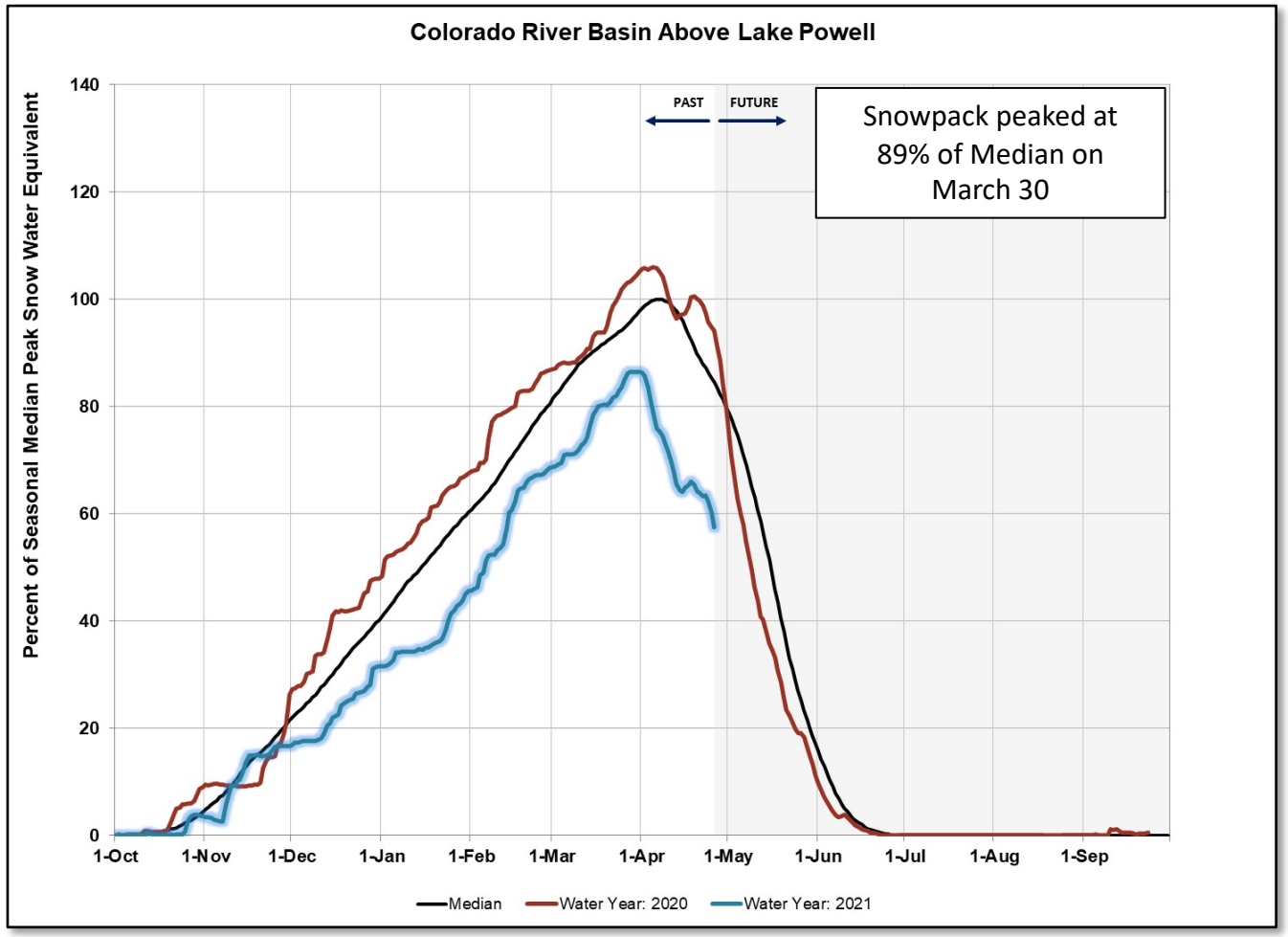
Upper Colorado River Basin
Water Year 2021 Snowpack and Inflow into Lake Powell

Water Year 2021 Forecasted Inflow

4.40 maf

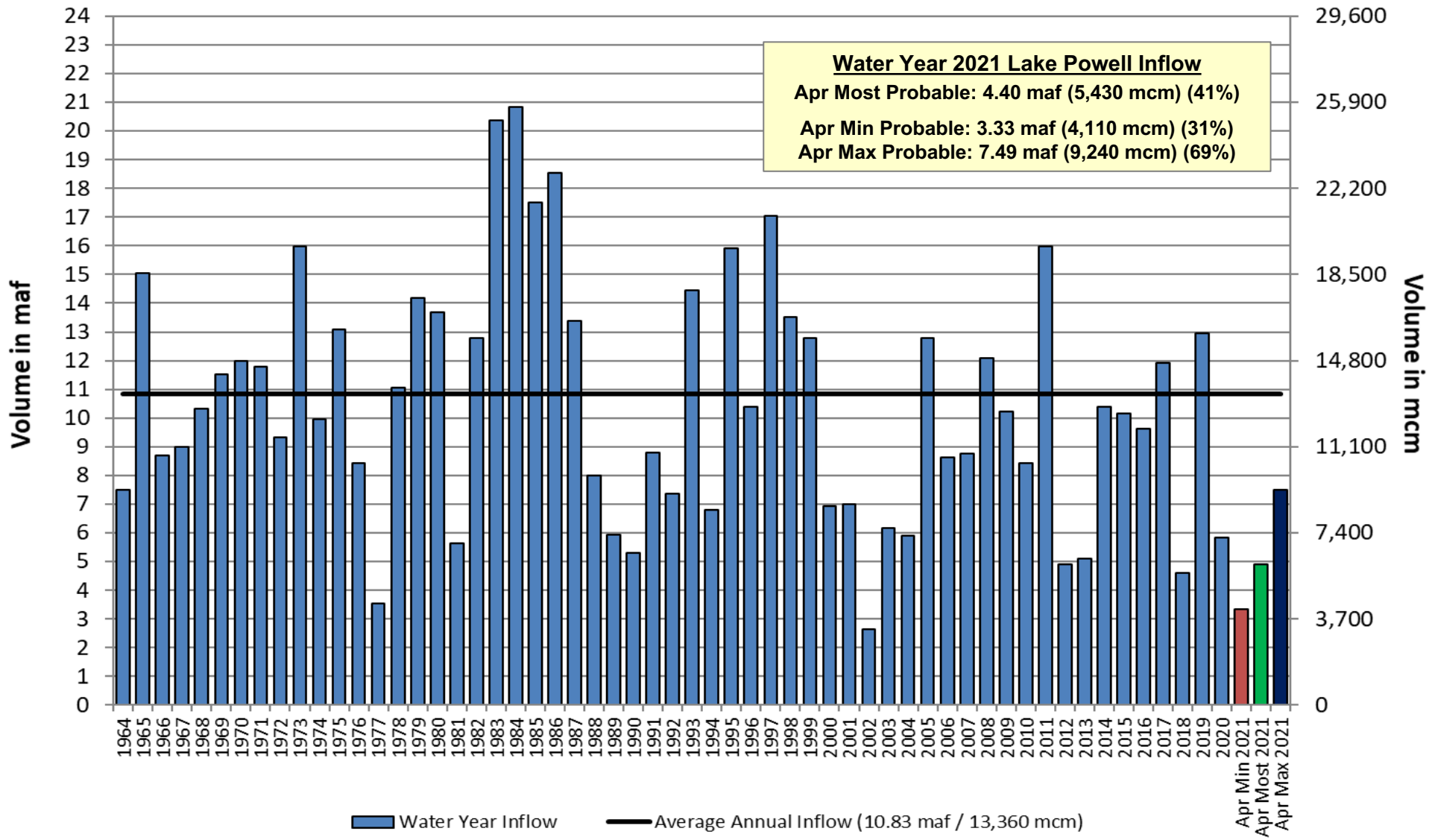
(5,430 mcm)

41% of average



Lake Powell Unregulated Inflow

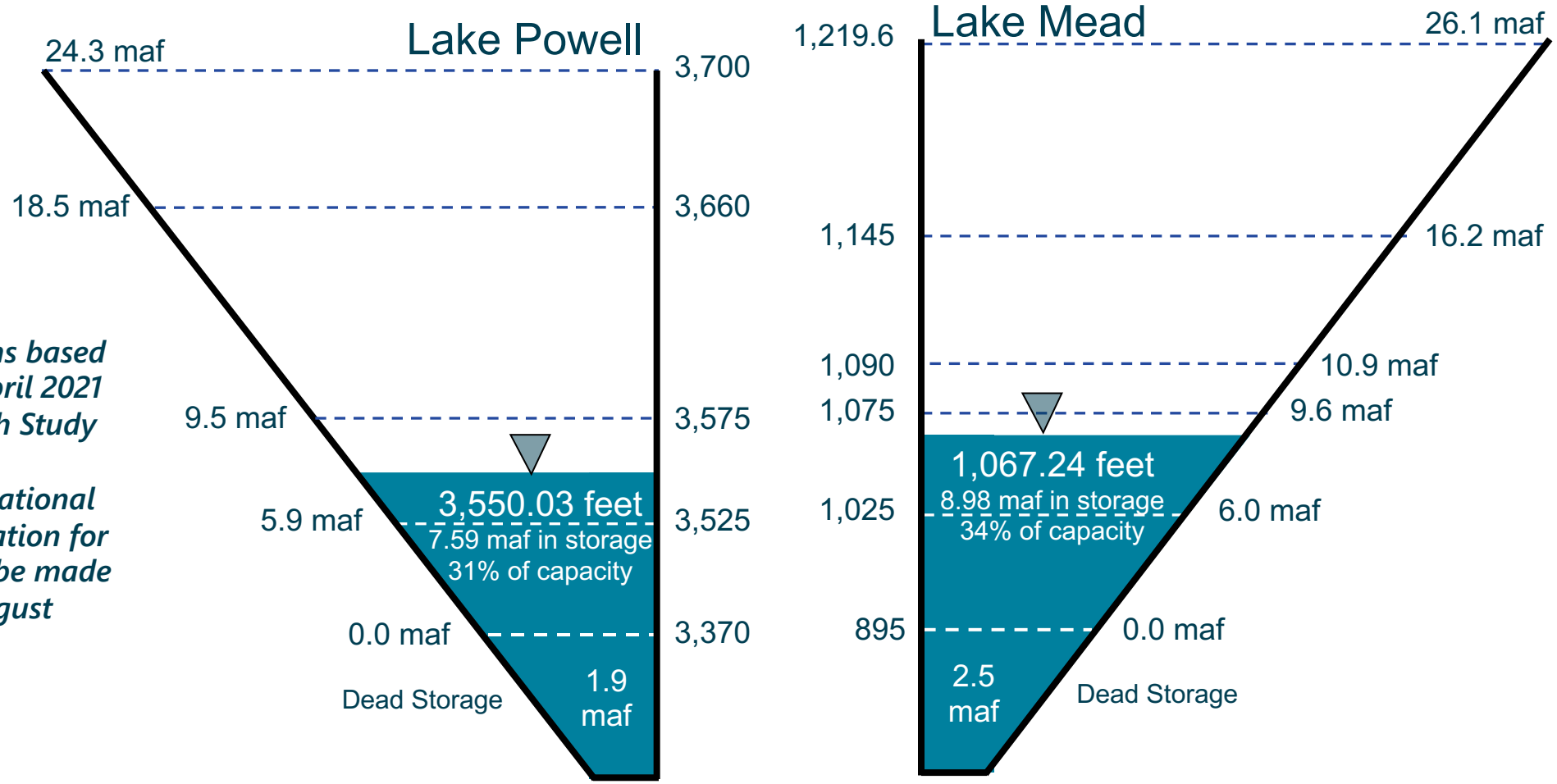
Water Years 1964 through 2021



End of Calendar Year 2021 Projections

April 2021 24-Month Study Most Probable Inflow Scenario[1]

Based on a Lake Powell release of 8.23 maf in WY 2021 and 7.48 maf in WY 2022



Projections based on the April 2021 24-Month Study

The operational determination for 2022 will be made in August

Not to Scale

[1] *WY 2021 unregulated inflow into Lake Powell is based on the CBRFC forecast dated 4/2/21.*

Shortage Reductions and Water Savings Contributions
Under the 2007 Interim Guidelines, Minute 323, Lower Basin Drought Contingency Plan (DCP)*, and Binational Water Scarcity Contingency Plan
(Volumes in thousand acre-feet)

Lake Mead

Projected Operation for 2022

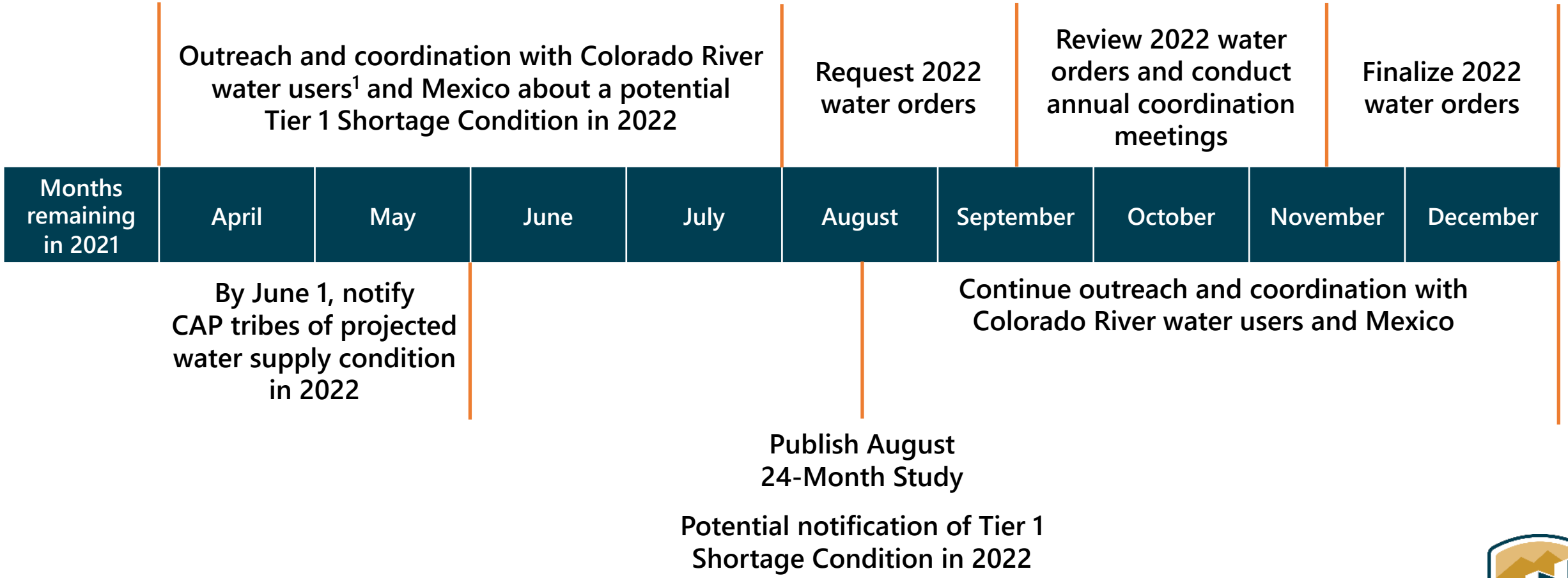
Based on the April 2021 24-Month Study

The operational determination for 2022 will be made in August

Lake Mead Elevations (in feet)	2007 Interim Guidelines Shortage Reductions (U.S.)		Minute 323 Delivery Reductions (Mexico)	Total Combined Shortage Reductions (U.S. and Mexico)	DCP Water Savings Contributions (U.S.)			Binational Water Scarcity Contingency Plan Water Savings (Mexico)	Combined Volumes of Shortage Reductions and Water Savings Contributions by Lower Basin State and by Country (U.S. and Mexico)					Total Combined Volumes (U.S. and Mexico)
	AZ	NV	Mexico	***Lower Basin States + Mexico***	AZ	NV	CA	Mexico	*AZ Total*	*NV Total*	*CA Total*	*Lower Basin States Total*	*Mexico Total*	***Lower Basin States + Mexico***
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***

*Under the Lower Basin DCP, the United States will take affirmative actions to create or conserve 100,000 acre-feet or more of Colorado River system water on an annual basis to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the Lower Basin. All actions taken by the United States shall be subject to applicable federal law, including availability of appropriations.

Reclamation – Timeline of Next Steps
In preparation for a potential 2022 Shortage Condition



[1]Includes CAP, on-river water users, and tribes with mainstream priority 4 and 5 entitlements in Arizona and SNWA in Nevada

Arizona's Drought Contingency Implementation Plan

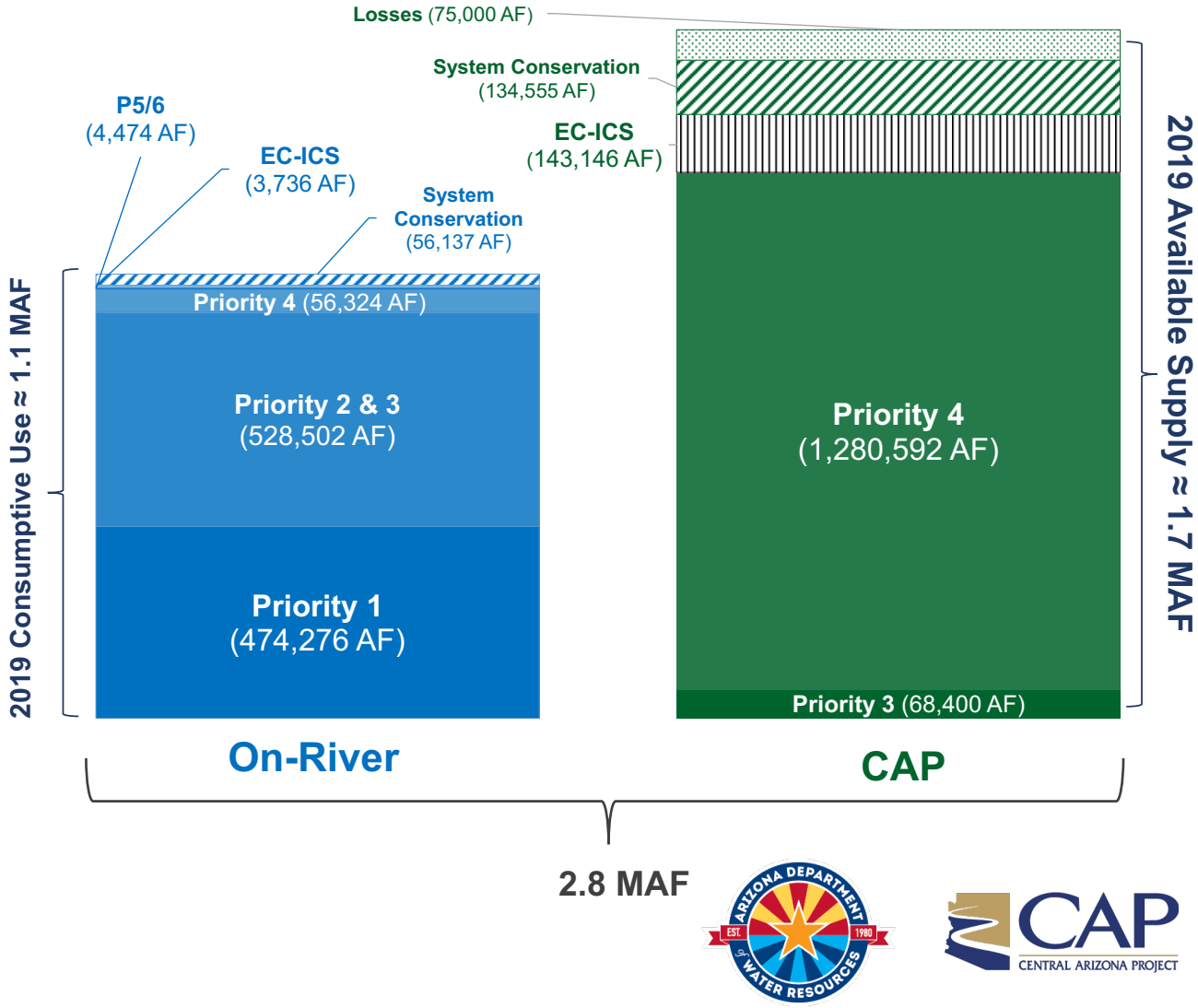
Context: Lower Basin Drought Contingency Plan

- Reduced the risk of critically low Lake Mead elevations
- Collective action, among all the Basin States, the United States and Mexico, to reduce the risk to everyone
- Even with increased conservation efforts, a Tier 1 shortage was expected and planned for

Context: Colorado River Priorities and Uses in AZ (2019)

← Lower ---- Priority ---- Higher →

- **Priority 6:** Entitlements to Surplus Water
- **Priority 5:** Unused Arizona Entitlement or Apportionment
- **Priority 4:** Post-September 30, 1968 contracts, Secretarial Reservations, and Perfected Rights
- **Priority 3:** Entitlements pursuant to contracts between the United States and water users in the State of Arizona executed on or before September 30, 1968
- **Priority 2:** Secretarial Reservations and Perfected Rights established or effective prior to September 30, 1968
- **Priority 1:** Present Perfected Rights as defined and provided for in the Decree

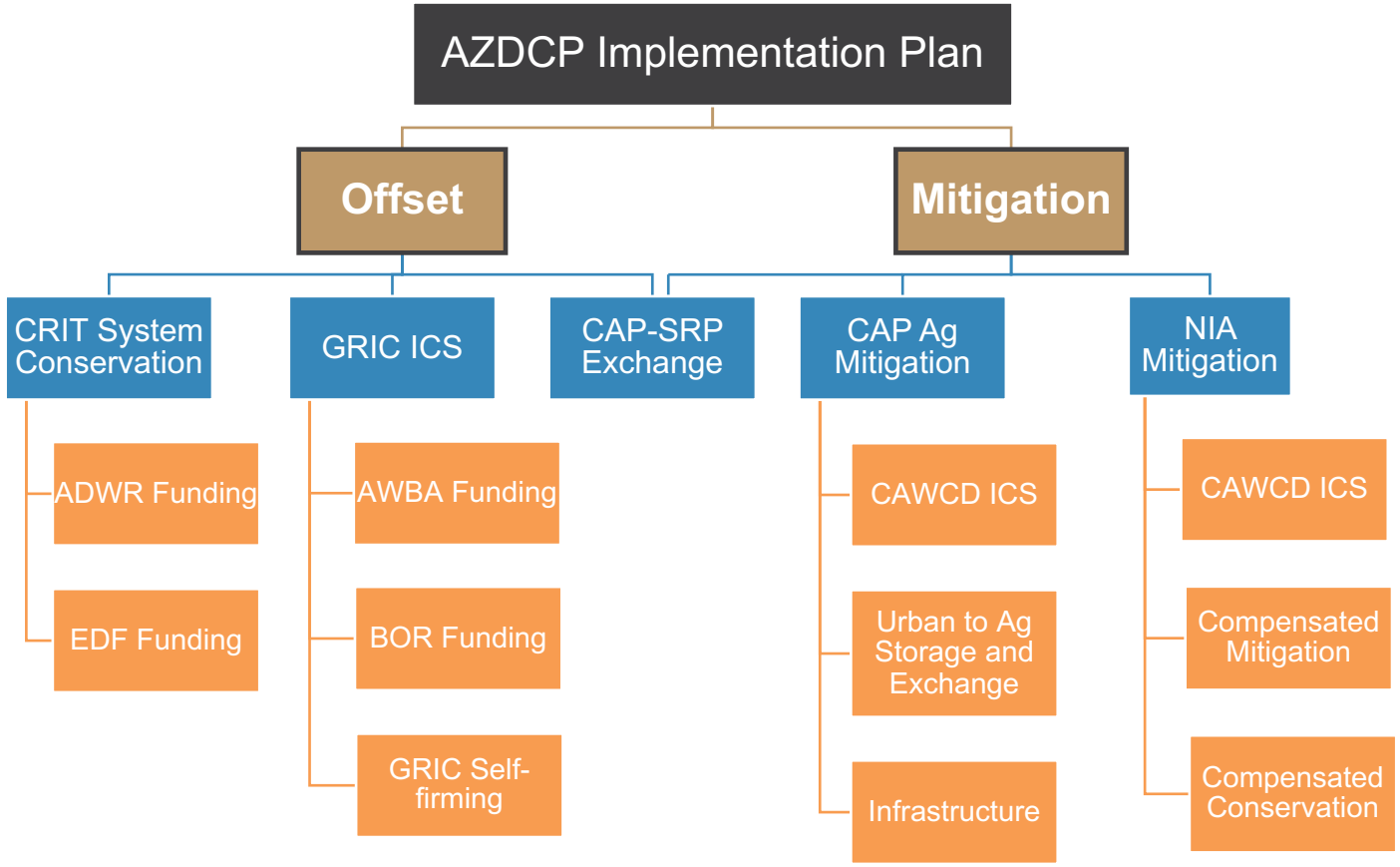


Process: Arizona DCP Steering Committee

- DCP Steering Committee – over 40 Arizona water leaders representing: Arizona Legislature, water managers, tribes, cities, irrigation districts, developers, industry, and environmental organizations, co-chaired by ADWR and CAP
- 24 participants contributing water, funding and infrastructure
  - ADWR (funding)
  - Avondale (water)
  - AWBA (funding and credits)
  - BOR (funding)
  - CAIDD
  - CAWCD (water and funding)
  - Chandler (water)
  - CRIT (water)
  - EDF (funding)
  - EPCOR (water)
  - Freeport Minerals (water)
  - Goodyear (water)
  - GRIC (water)
  - HIDD
  - HVIDD
  - MSIDD
  - NMIDD
  - Peoria (water)
  - Phoenix (water)
  - QCIDD
  - SCIDD
  - Scottsdale (water)
  - SRP (water)
  - Tucson (water)

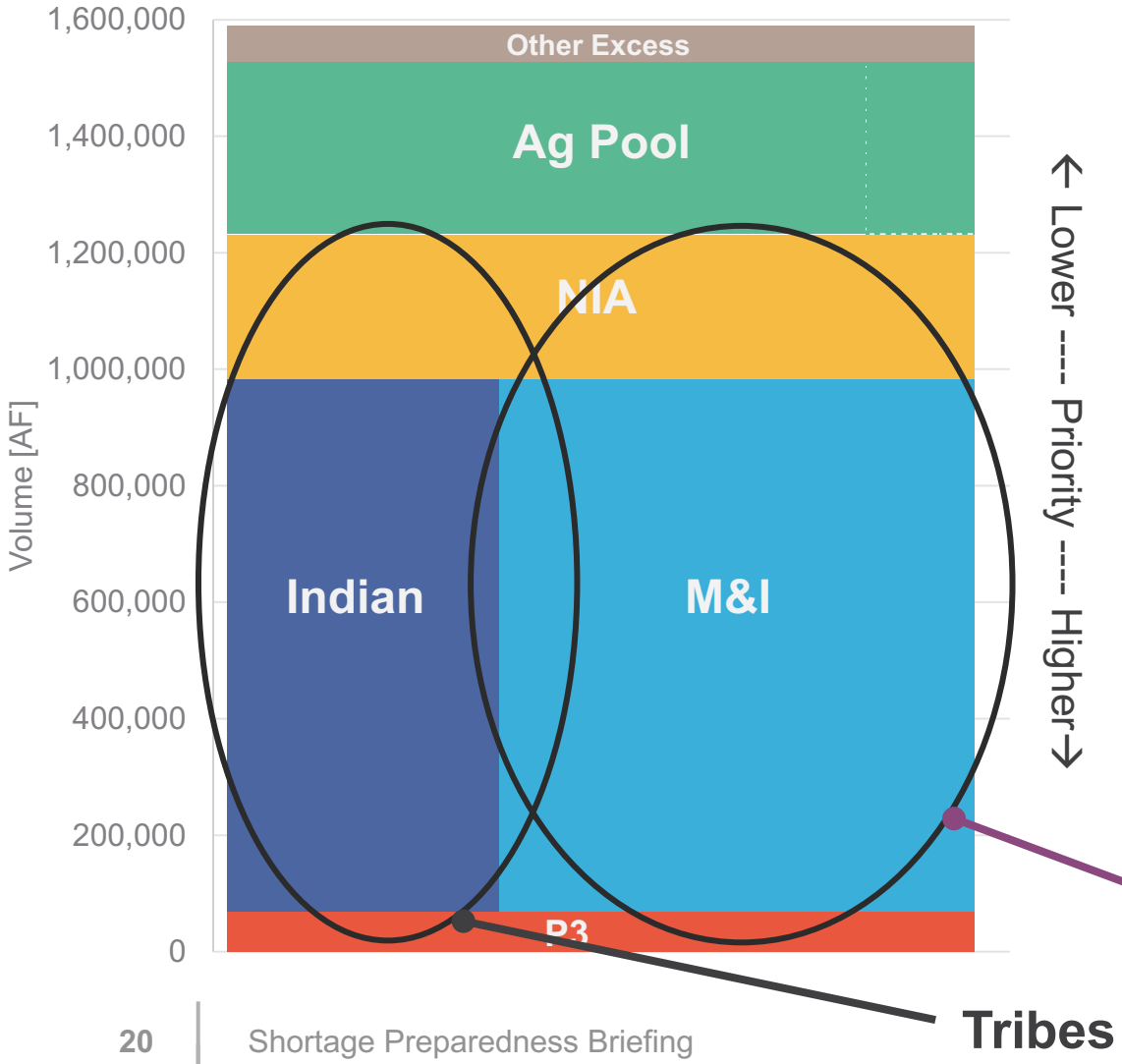
Arizona DCP Implementation Plan

- **Mitigation** – lessens some of the impacts of DCP shortage reductions
- **Offset** - Additional Lake Mead contributions to offset potential impact to Lake Mead from use of CAWCD ICS for mitigation



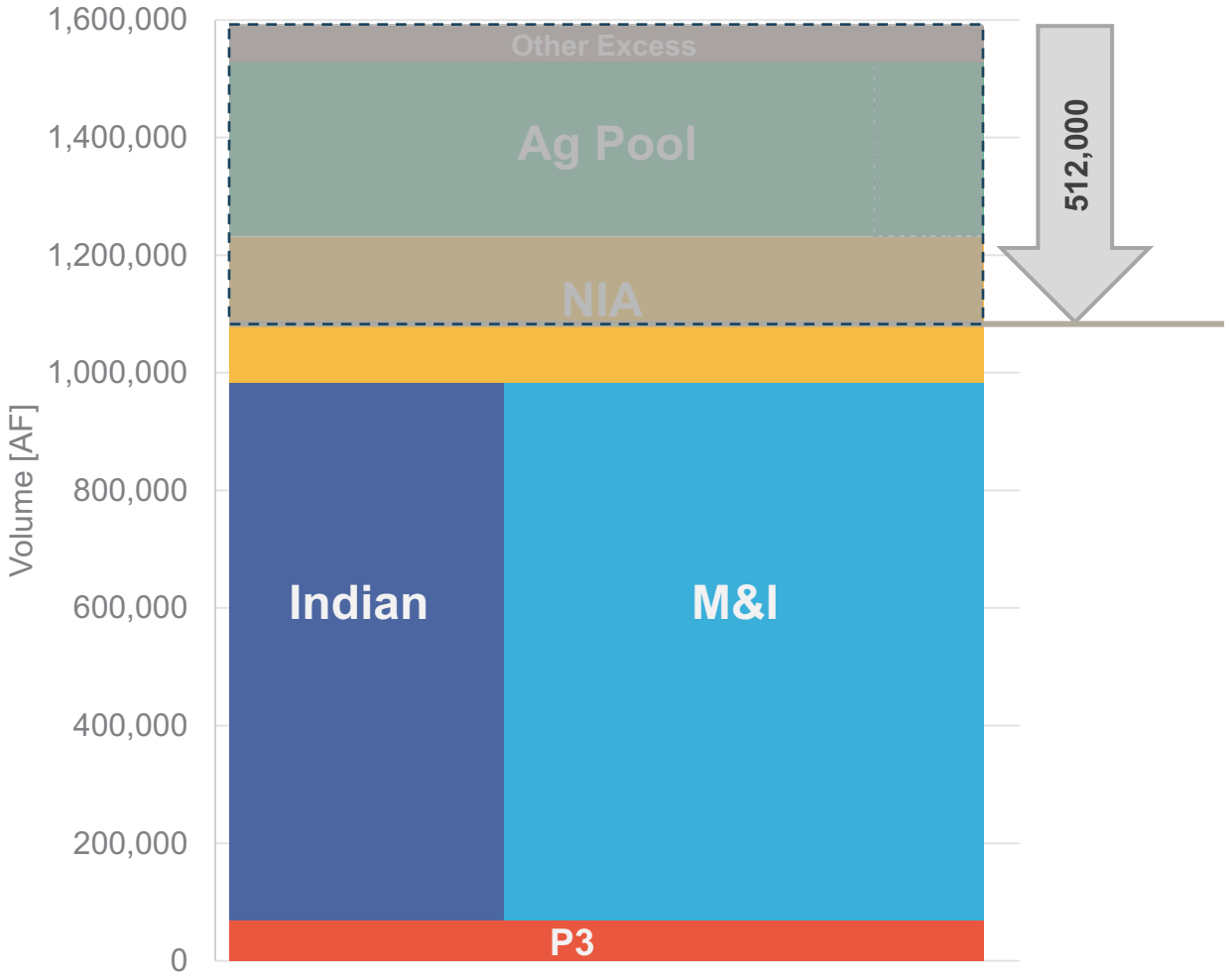
Impacts of Shortage on CAP Water Supplies

CAP Priorities—Full Supply



- "Block Chart" illustrates delivery requests by CAP priority
  - Higher priority entitlements are towards the bottom of the chart
- The names of the "pools" do not neatly align with uses
- Assumptions for 2022:
  - 1.595 MAF delivery supply prior to reductions
  - Water orders similar to 2021
  - Includes NIA Reallocation

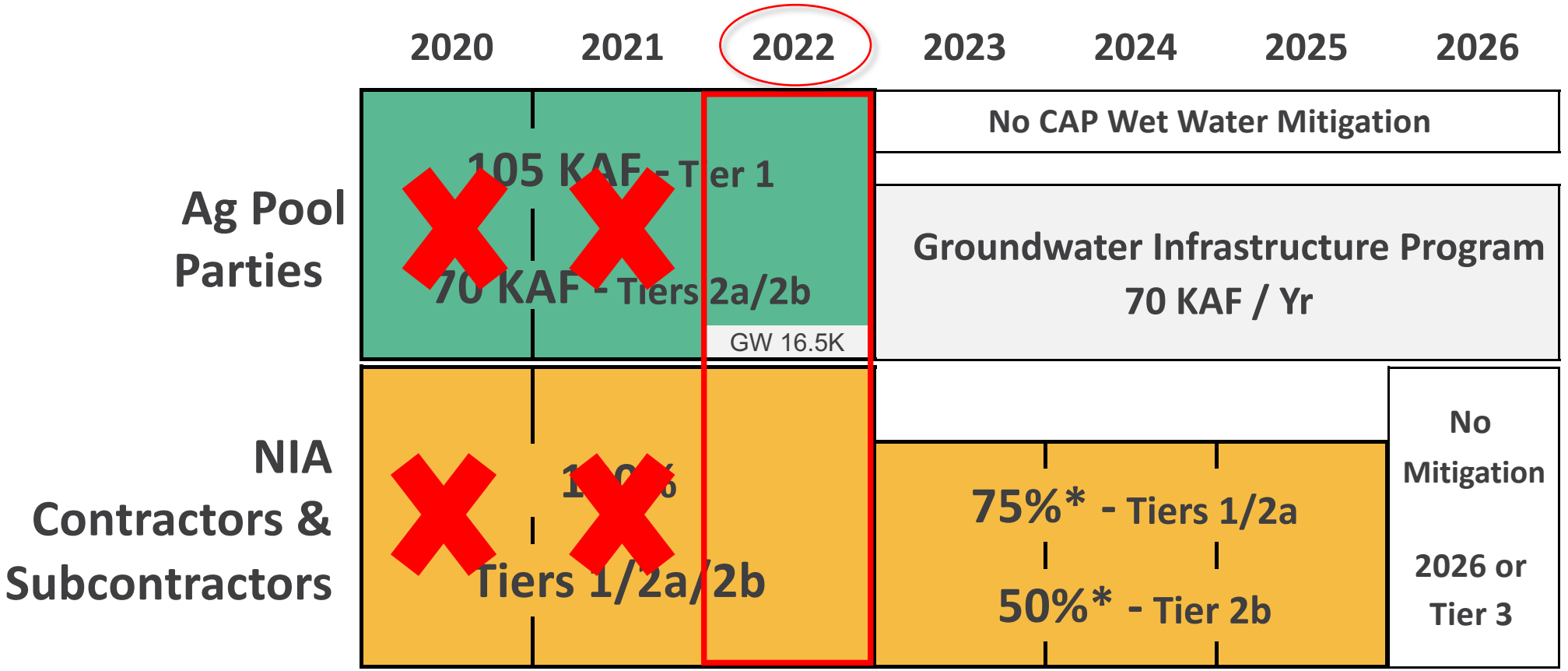
CAP Priorities—Tier 1 Shortage



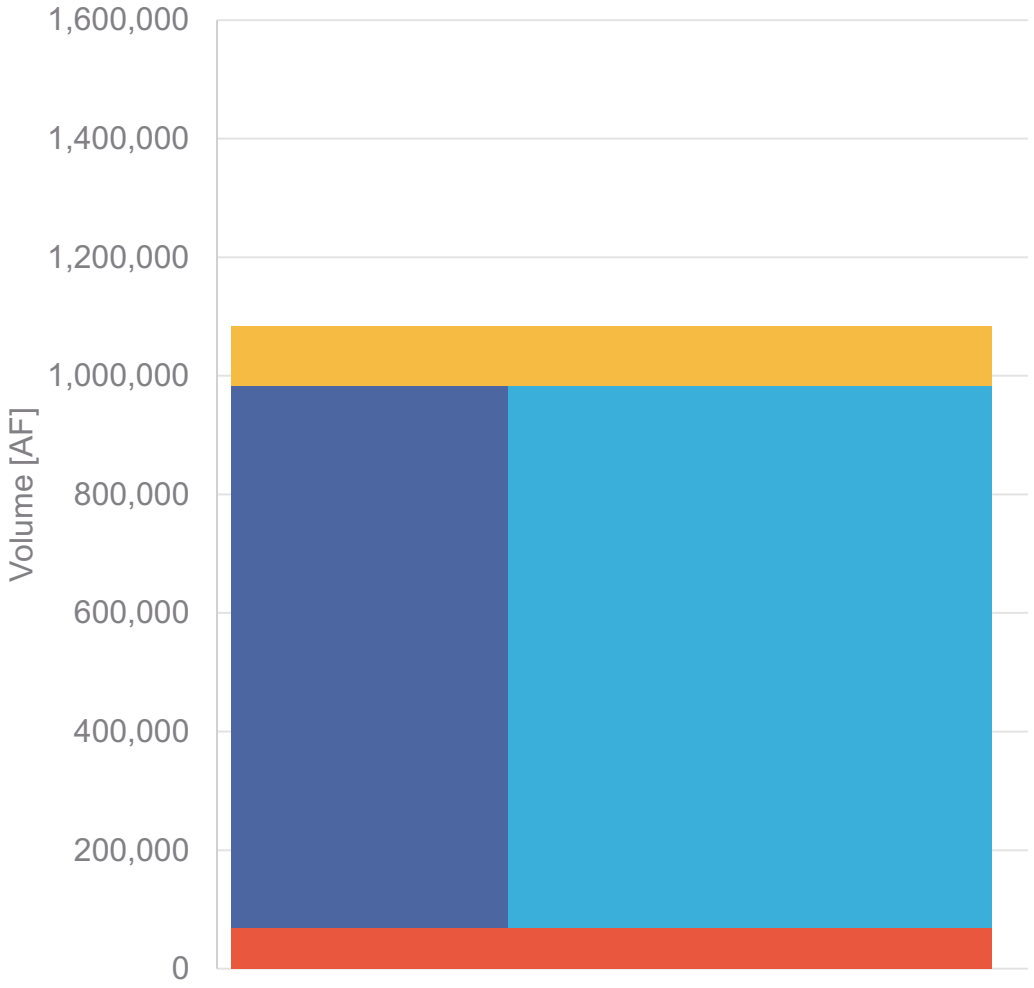
- 512,000 AF* Reduction/Contribution
  - 320,000 AF per 2007 Guideline
  - 192,000 AF per LBDCP
- Pre-Mitigation Impacts
  - 100% Reduction to Ag Pool
  - ~60% Reduction to NIA Pool

* P5/6 reductions accounted for separately.

Mitigation Commitments



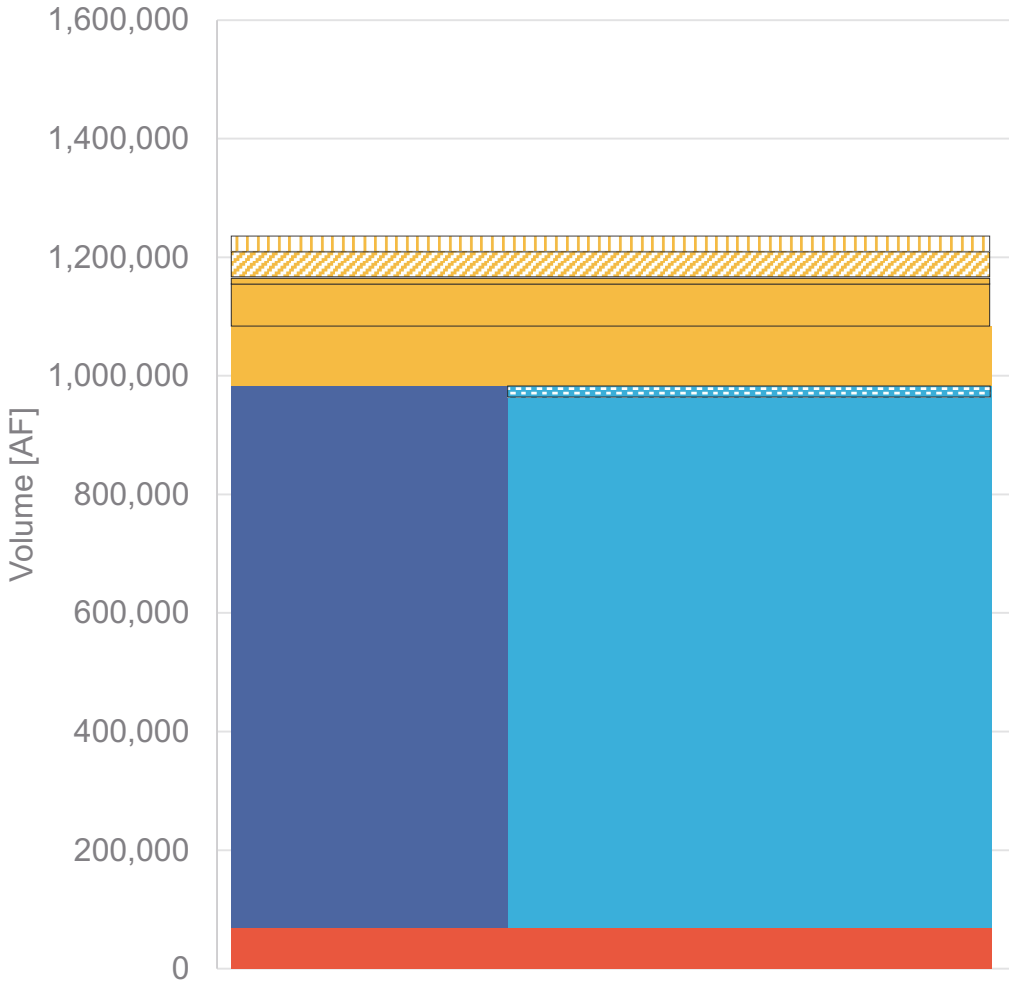
2022 – Tier 1 Shortage



- Starting point is a shortage-reduced CAP supply of ~1,083,000 AF
  - ~100,000 AF available to the NIA pool

2022 – Tier 1 Shortage

DRAFT EXAMPLE

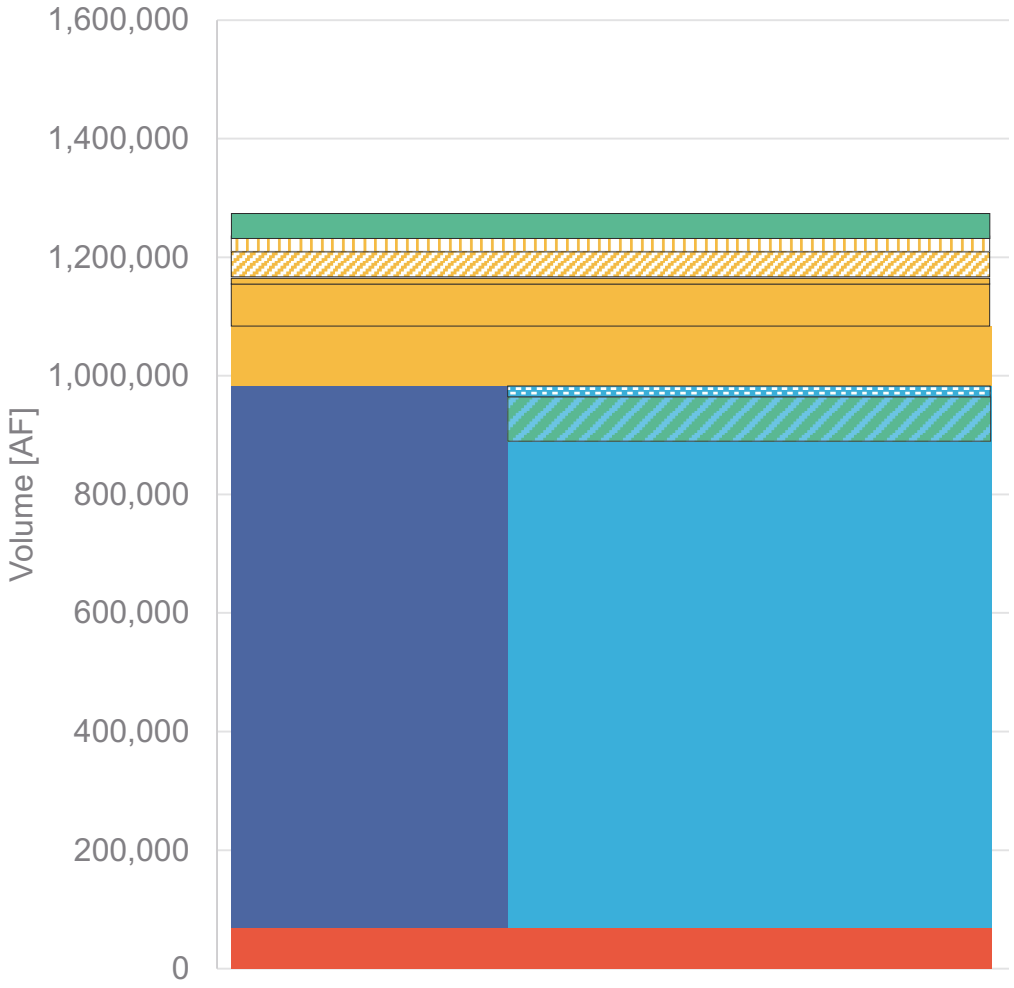


The **NIA-priority pool** is fully mitigated with a combination of credits, money, redirected CAP water, and water from Lake Pleasant and Lake Mead

	NIA Mitigation	
	Resource	**Volume (AF)**
	CAWCD ICS & Lake Pleasant	72,100
	SRP Exchange	10,000
	Compensated Mitigation	40,000
	State & Federal Firming	25,800
	Total:	**147,900**

2022 – Tier 1 Shortage

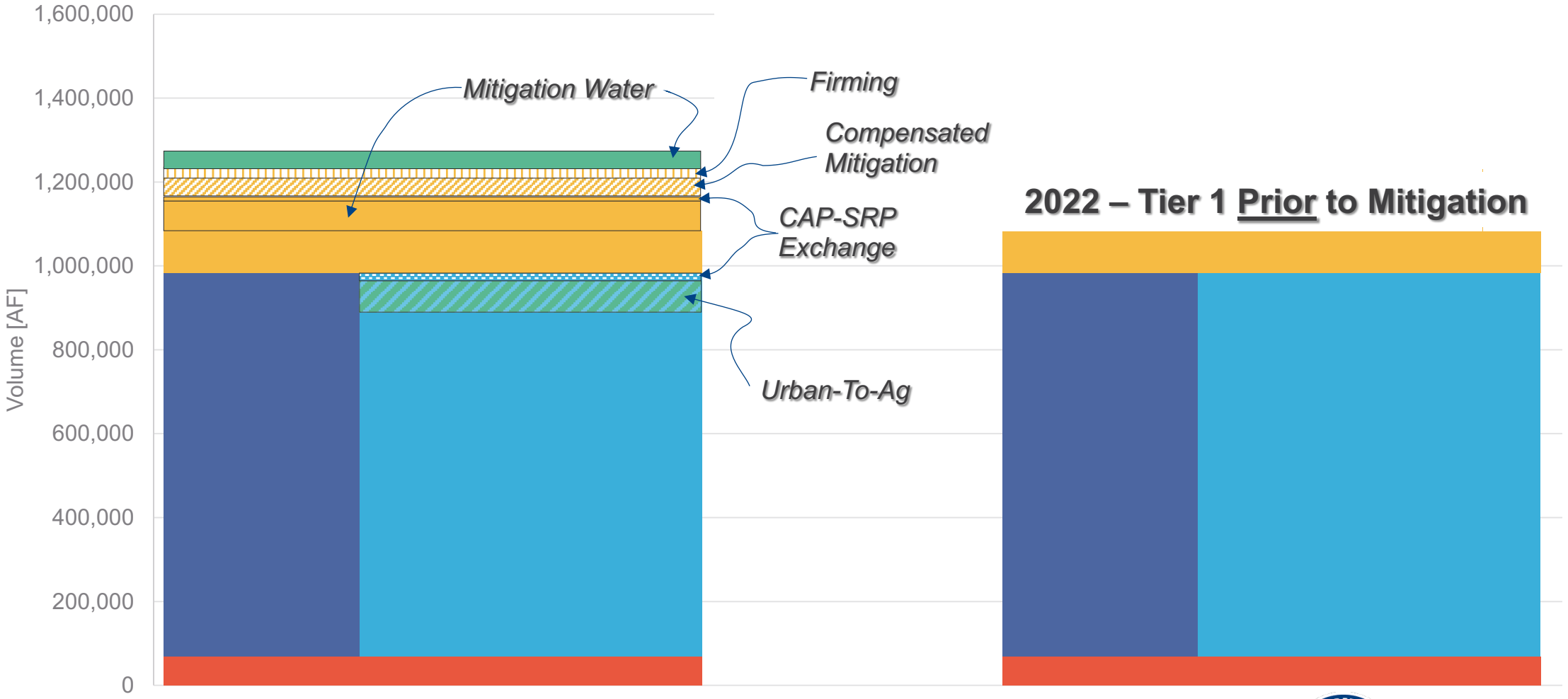
DRAFT EXAMPLE



The **Ag Pool parties** are mitigated with a combination of money for new wells, redirected CAP water from cities and others, and water from Lake Mead

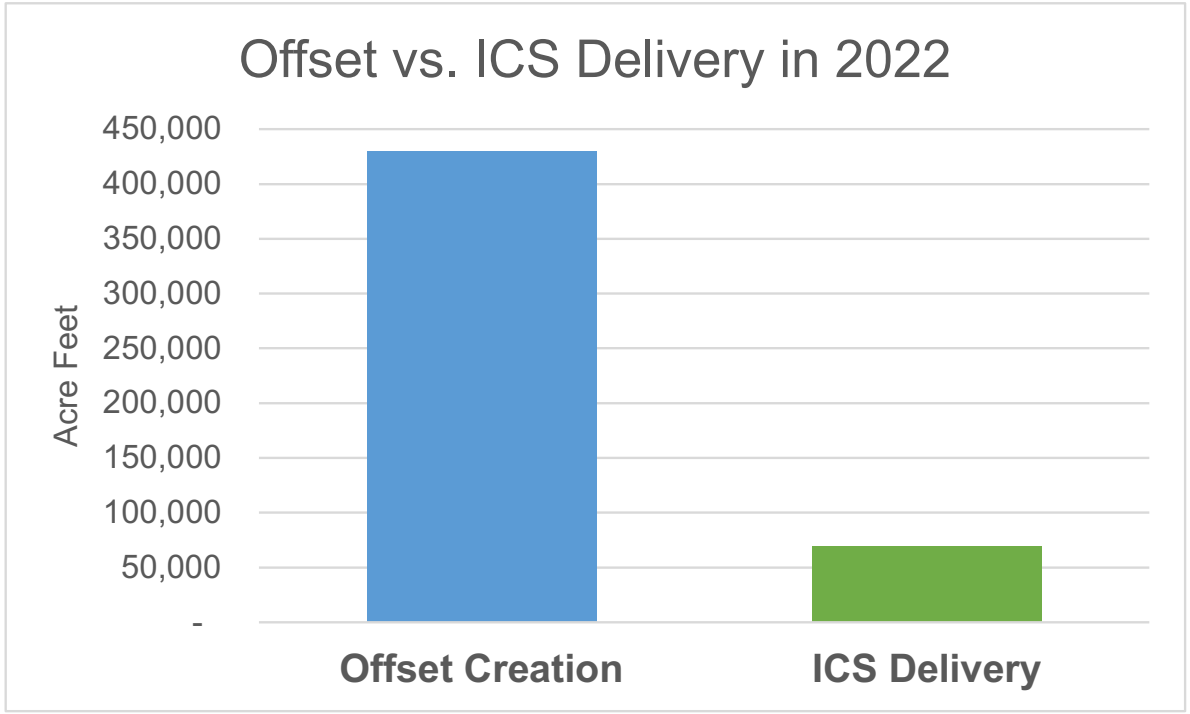
	Ag Mitigation	
	Resource	**Volume (AF)**
	Groundwater Infrastructure	16,500
	Urban-To-Ag	46,500
	CAWCD ICS	42,000
	Total:	**105,000**

2022 – Tier 1 Shortage



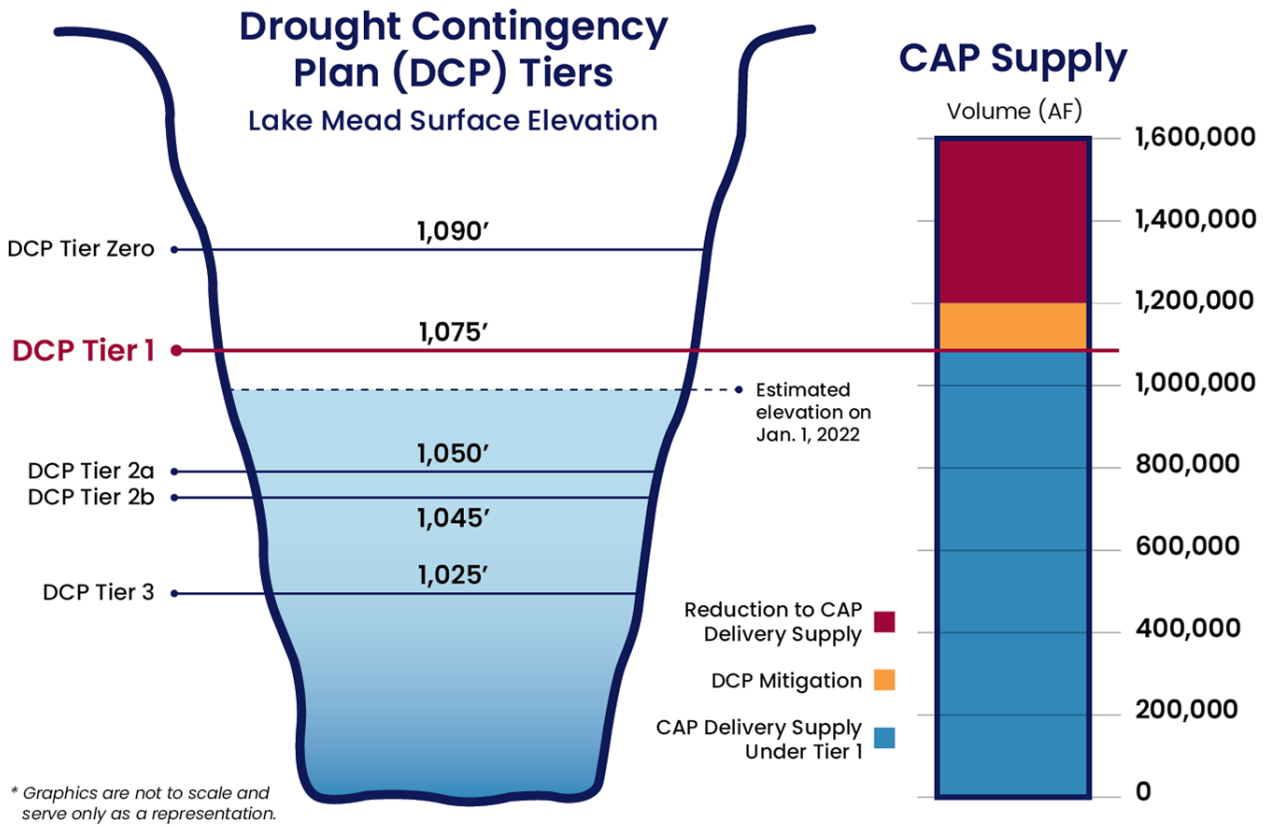
Offset Status & CAWCD ICS Utilization

- The Offset target of 400 KAF will be exceeded by the end of 2022
- An estimated 69,100 AF of CAWCD ICS may be required for Mitigation in 2022
- Remaining CAWCD ICS (est. 400 KAF) is sufficient to meet Mitigation requirements estimated for 2023 through 2025



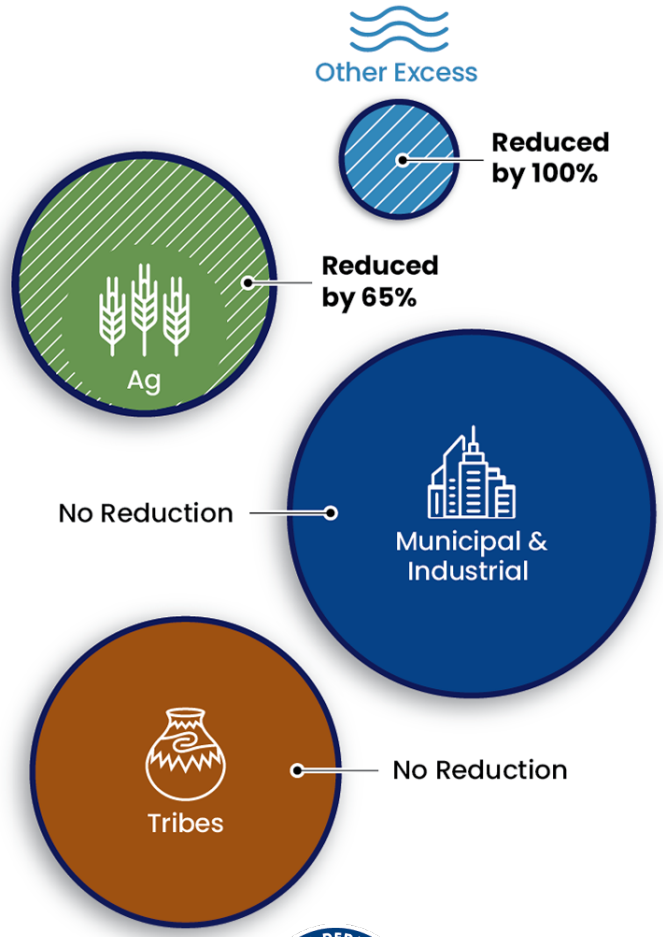
2022 – Tier 1 Shortage

CAP Reductions

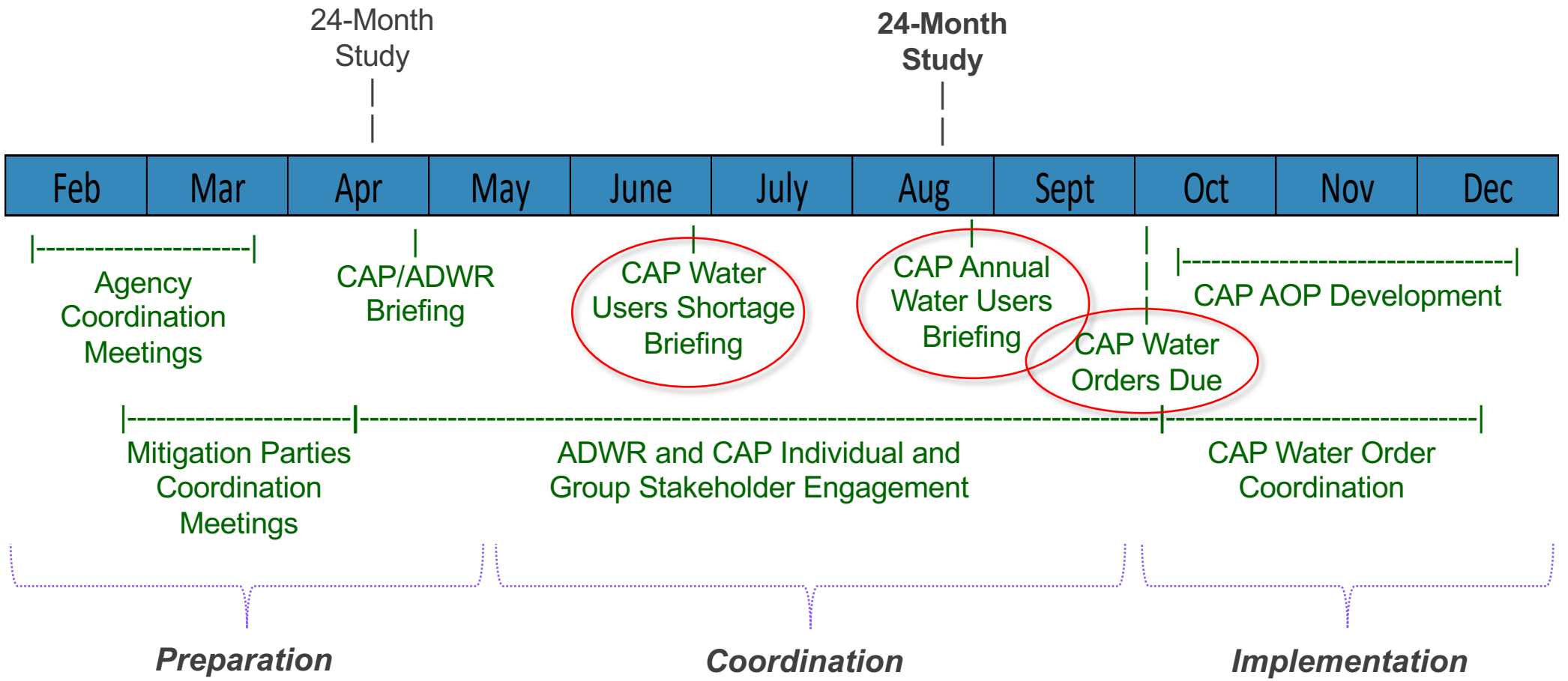


To learn more, please visit: www.cap-az.com/colorado-river-shortage

2022 Reduction to CAP Users After DCP Mitigation



Next Steps


24-Month Study
24-Month Study
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct
Nov
Dec
Agency Coordination Meetings
CAP/ADWR Briefing
CAP Water Users Shortage Briefing
CAP Annual Water Users Briefing
CAP Water Orders Due
CAP AOP Development
Mitigation Parties Coordination Meetings
ADWR and CAP Individual and Group Stakeholder Engagement
CAP Water Order Coordination
Preparation
Coordination
Implementation

Questions

- **Submit questions or comments using the electronic public comment form at:**

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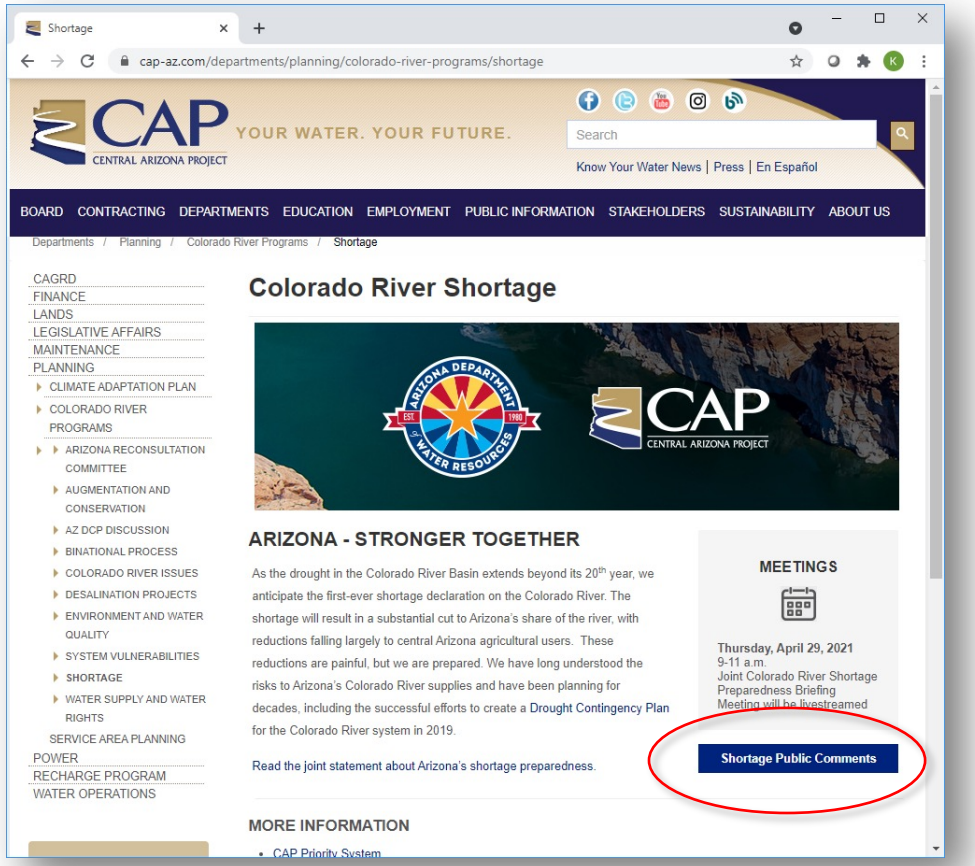

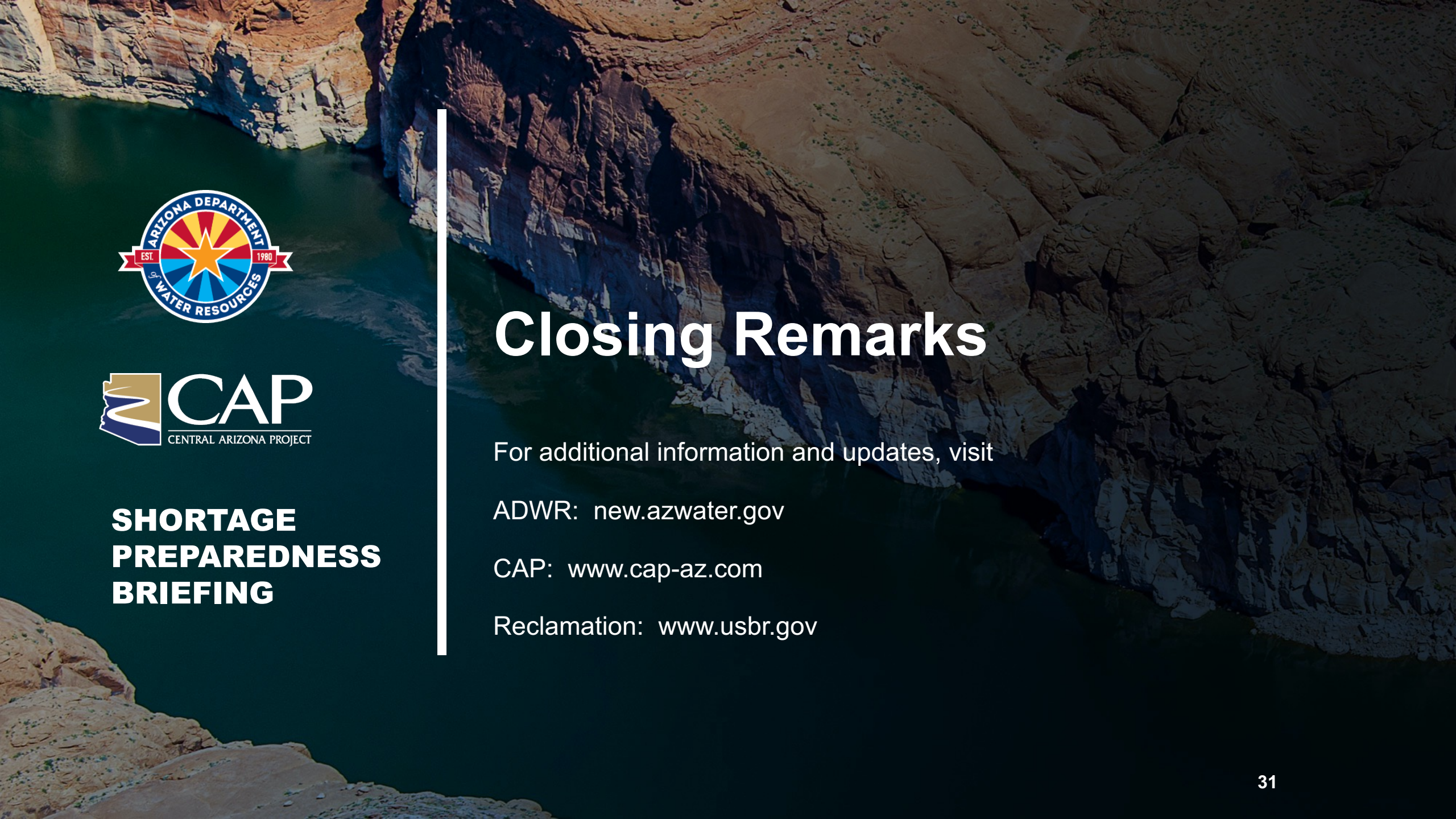

SHORTAGE PREPAREDNESS BRIEFING

Closing Remarks

For additional information and updates, visit

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CAP: www.cap-az.com

Reclamation: www.usbr.gov