



**SHORTAGE
PREPAREDNESS
BRIEFING**

Joint Colorado River Shortage Preparedness Briefing

Tom Buschatzke, ADWR Director

Brenda Burman, CAP General Manager

May 5, 2023

Meeting Logistics

- Electronic public comment forms are available for anyone wishing to submit a comment or question during the meeting
 - [www.cap-az.com/meetings/Arizona Reconsultation Committee](http://www.cap-az.com/meetings/Arizona%20Reconsultation%20Committee)
- 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



Agenda

- Introduction
- Colorado River Hydrology & Operations
- 2023 Reductions and System Contributions in Arizona
- 2024 Potential Lower Basin Water Supply
- 2024 Potential Arizona Water Supply
- Basin States Discussions
- Questions





— BUREAU OF —
RECLAMATION

Colorado River Basin Current Conditions & Operational Update

Daniel Bunk

Chief, Boulder Canyon Operations Office
Bureau of Reclamation, Lower Colorado Basin Region

Colorado River Shortage Preparedness Briefing
May 5, 2023

Colorado River Basin Storage

(as of May 1, 2023)

Reservoir	Percent Full	Storage (maf)	Elevation (feet)
Lake Powell	24%	5.54	3,525.0
Lake Mead	29%	7.66	1,049.7
Total System Storage	34%	19.80	- - -

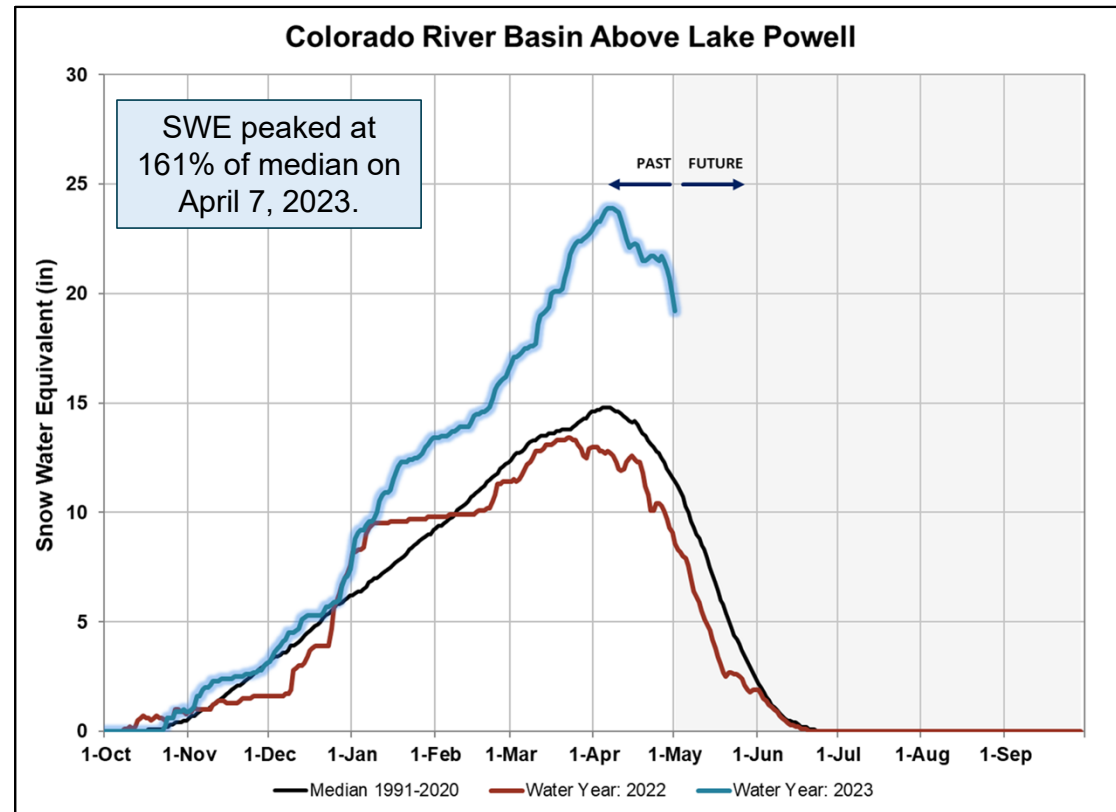
Total system storage was 34% of capacity, or 20.45 maf in storage, at this time last year.



Water Year 2022 Upper Basin Snowpack and Inflow^{1,2} as of May 1, 2023

Lake Powell Unregulated Inflow *Dated April 21, 2023*

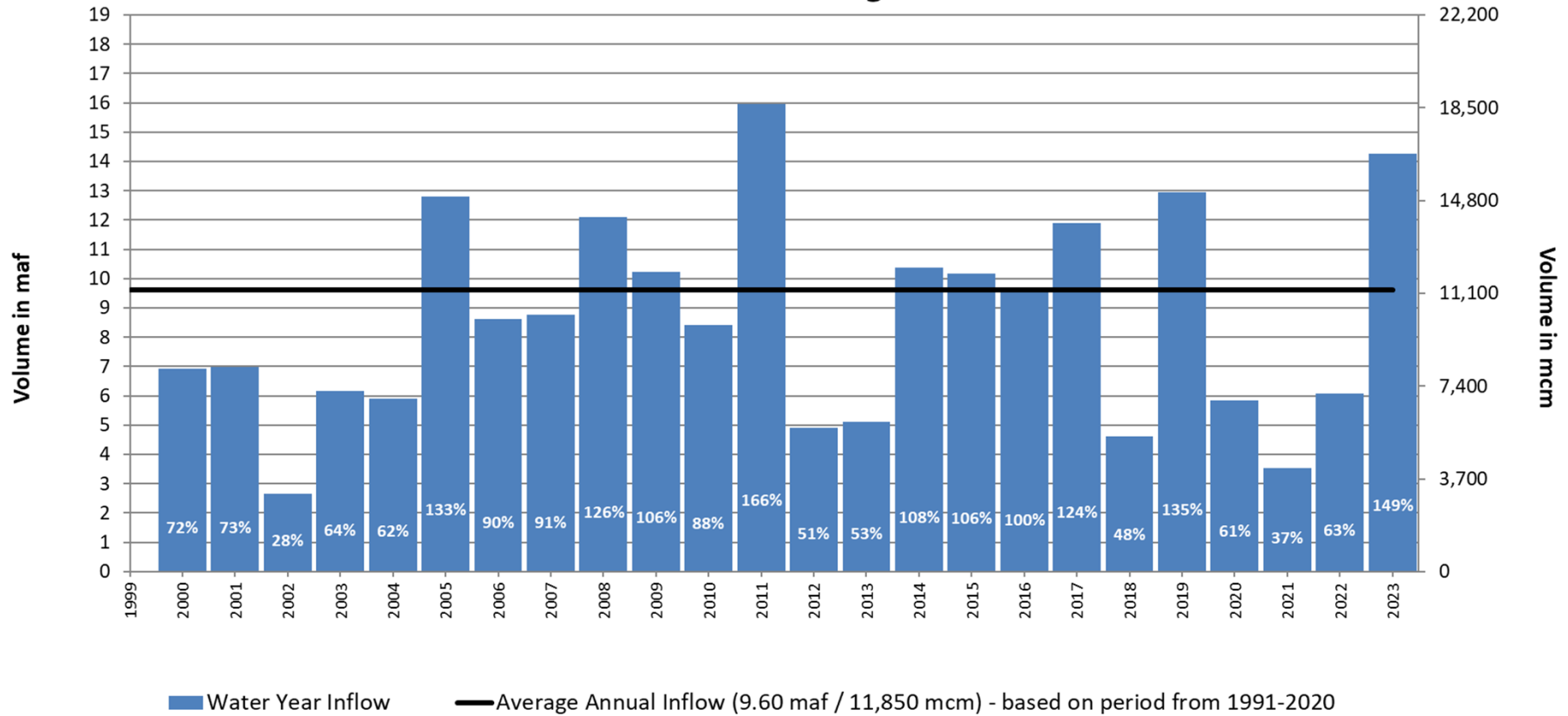
Period in 2023	Volume (maf)	% of Average
April through July	11.10	174%
Water Year	14.27	149%



¹ Percent of normal precipitation is based on an arithmetic mean, or average; percent of normal snowpack is based on the median value for a given date. ² Statistics are based on the 30-year period of record from 1991-2020.



Lake Powell Unregulated Inflow Water Years 2000 through 2023



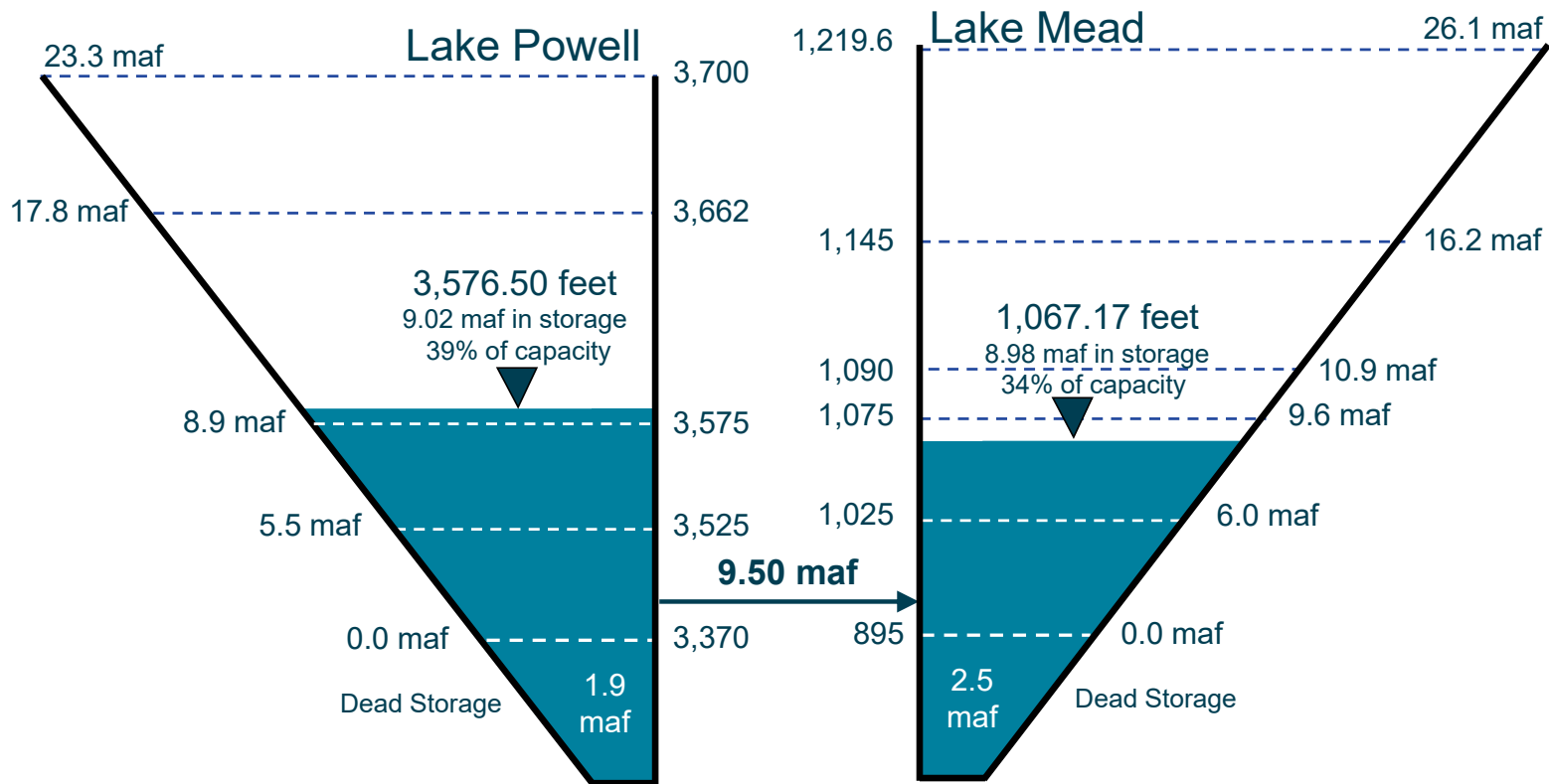
¹ Water Year 2023 is based on the CBRFC most probable inflow forecast dated April 21, 2023.



End of Water Year 2023 Projections

April 2023 24-Month Study Most Probable Inflow Scenario^{1, 2}

Based on a Lake Powell Unregulated Inflow Forecast of 14.47 maf (151% of average)

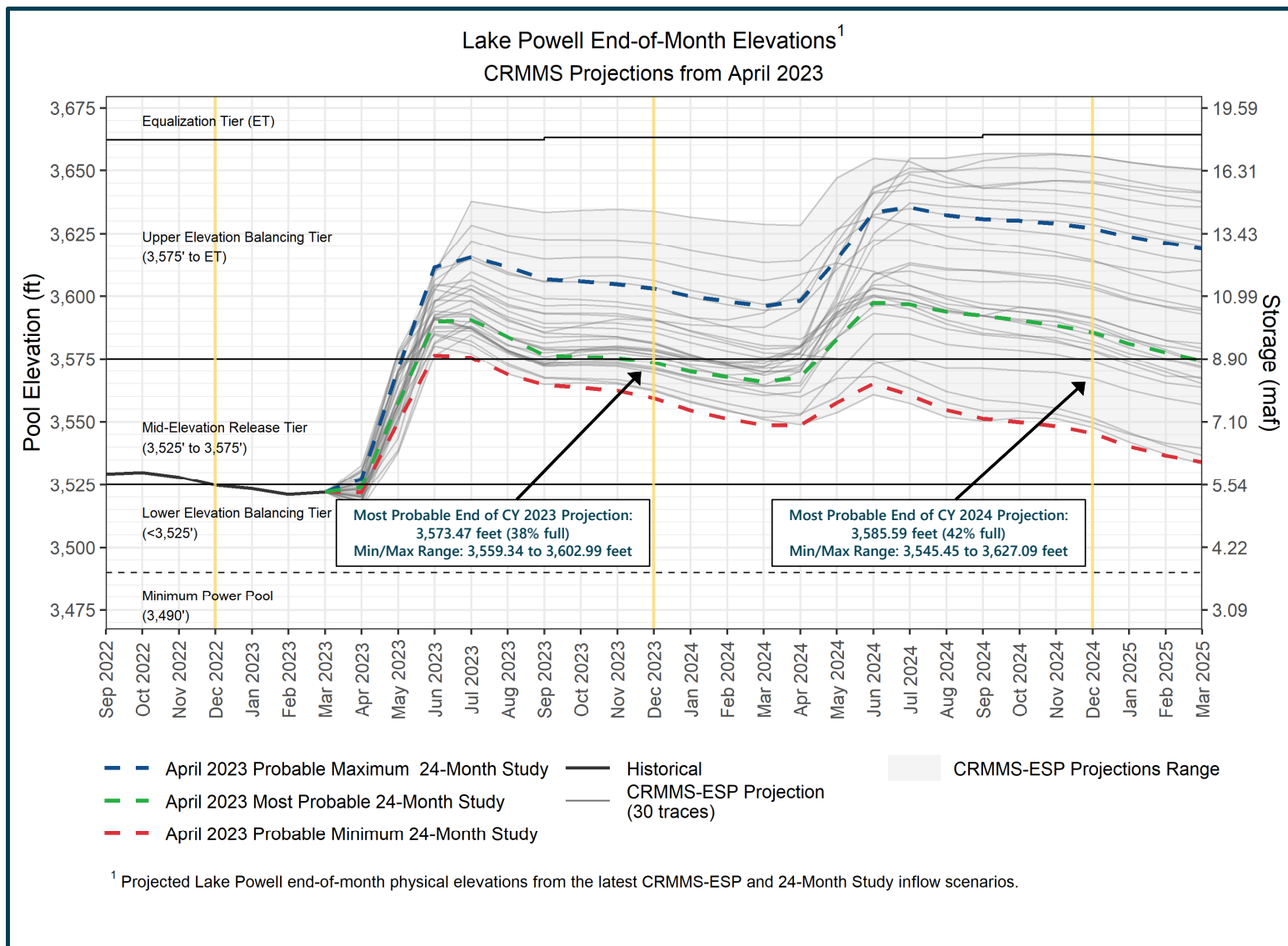


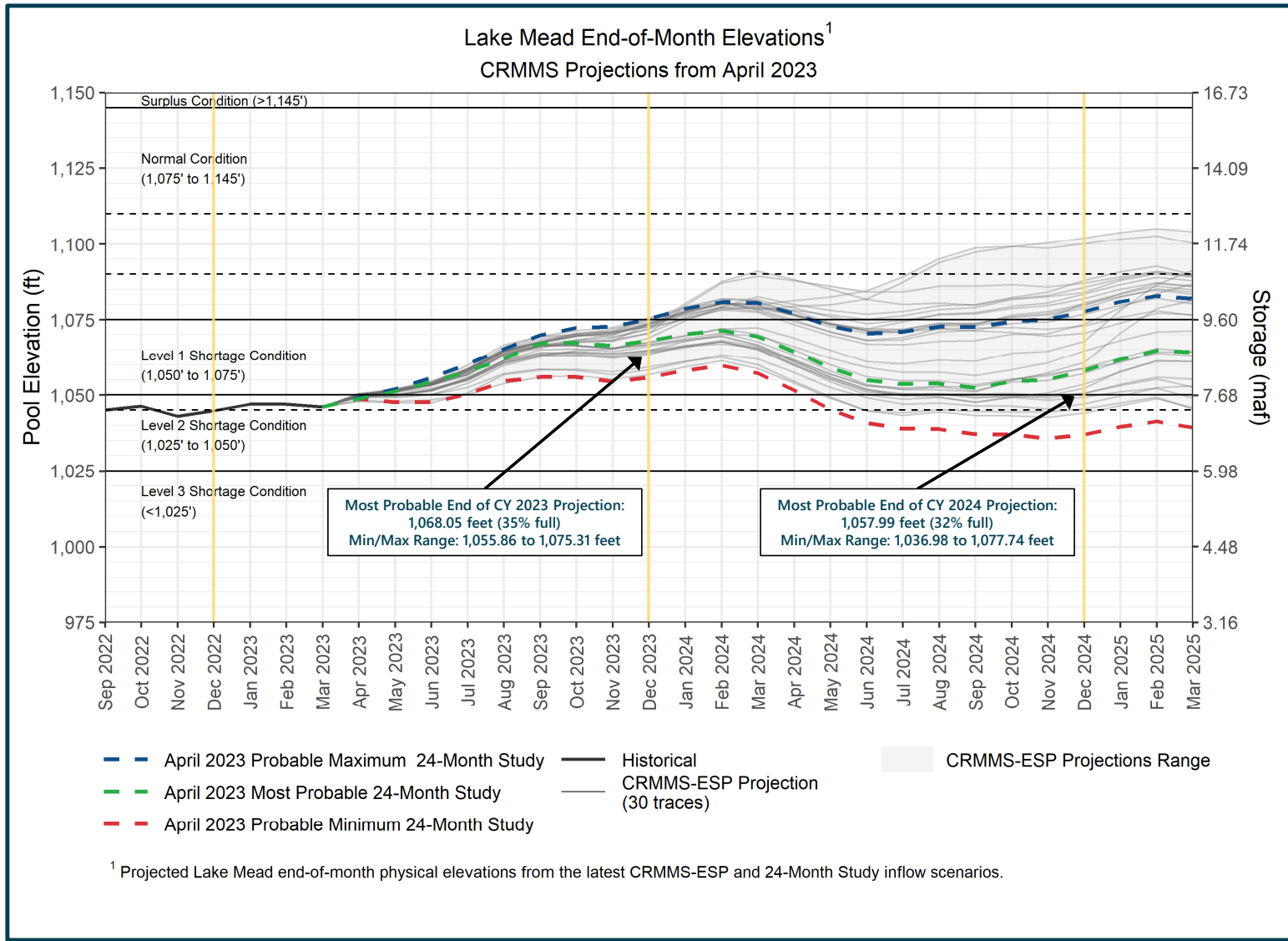
Not to Scale

¹ WY 2023 unregulated inflow into Lake Powell is based on the CBRFC forecast dated 4/5/23.

² The teacup diagram displays projected physical elevations and storages for Lake Powell and Lake Mead.



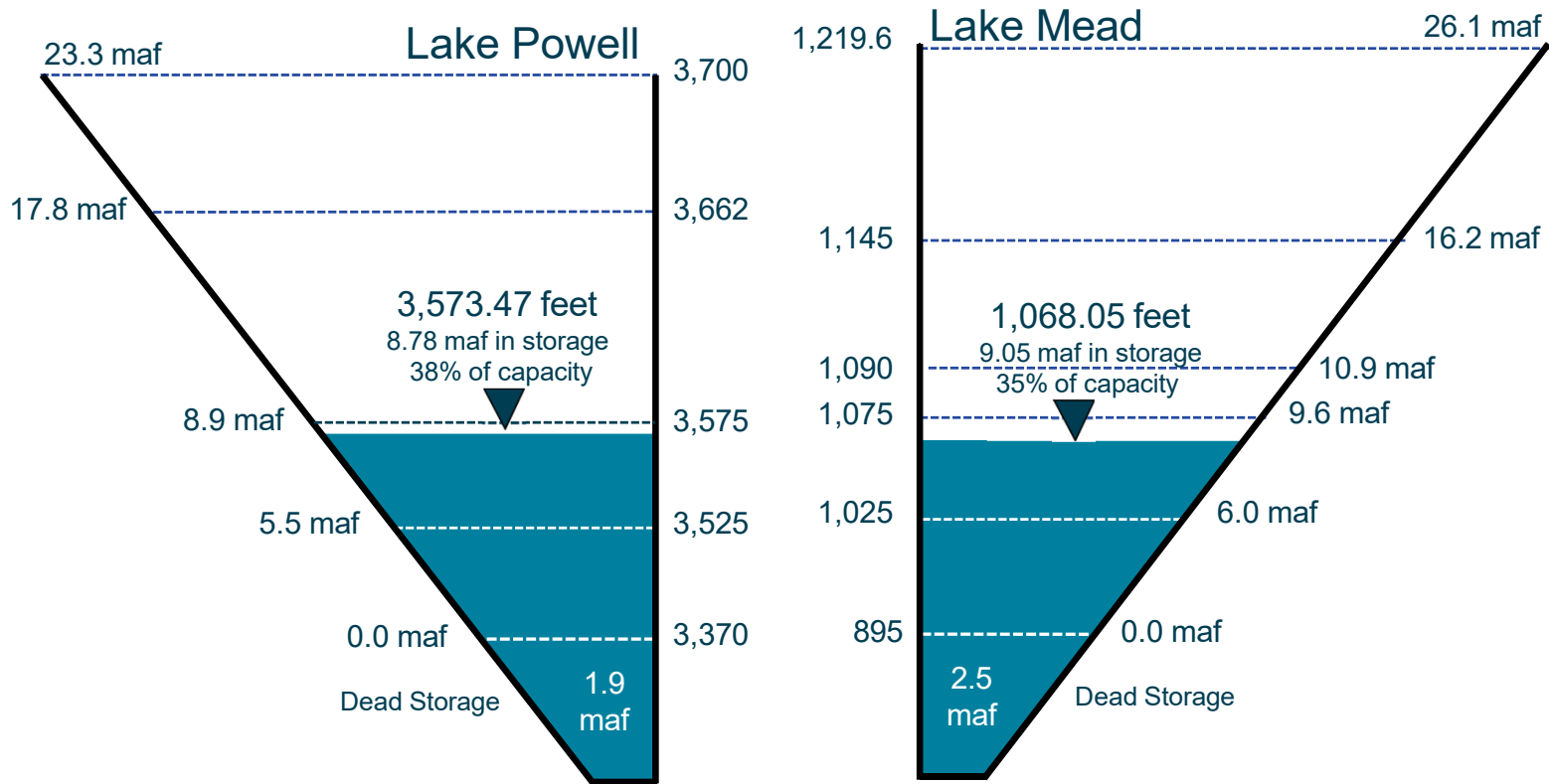




End of Calendar Year 2023 Projections

April 2023 24-Month Study Most Probable Inflow Scenario^{1,2}

Based on a Lake Powell release of 9.50 maf in WY 2023 and 7.48 maf in WY 2024



Not to Scale

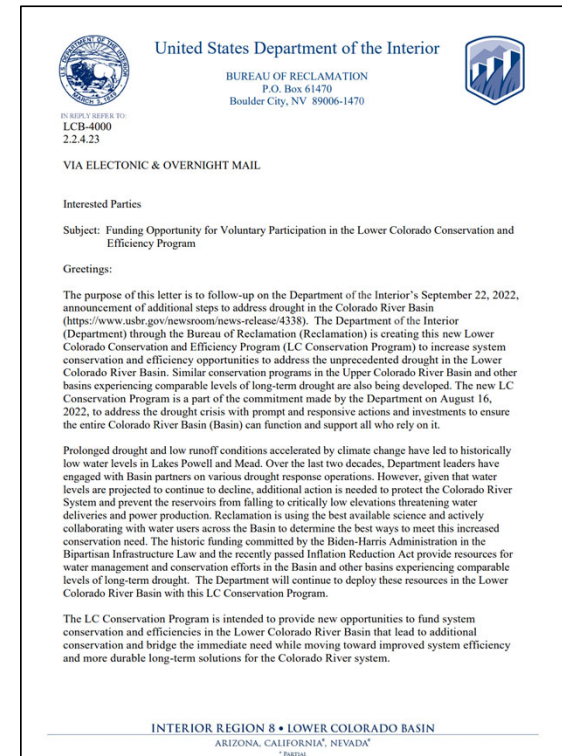
¹ WY 2023 unregulated inflow into Lake Powell is based on the CBRFC forecast dated 4/5/23.

² The teacup diagram displays projected physical elevations and storages for Lake Powell and Lake Mead.



LC Conservation and Efficiency Program

- Phase 1 implemented in October 2022
 - Short-term system conservation plans
 - 1a: Fixed prices
 - 1b: Propose price with economic justification
 - Both 1a and 1b must meet program requirements
- Several 1a agreements completed, totaling about 260,000 AF, and more in development
- Phase 2 in development
 - Projects with long-term, durable water savings benefits for the system
 - Rollout planned this spring



For more information:
<https://www.usbr.gov/uc/water/>
<https://www.usbr.gov/lc/riverops.html>



— BUREAU OF —
RECLAMATION

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Arizona's 2023 Reductions & Contributions

Tier 2a Guidelines shortage reduction	400 KAF
Tier 2a DCP contribution	192 KAF
Reclamation funded System Conservation	~260 KAF
ADWR-CAWCD ICS Preservation	~43 KAF
<hr/>	
Total	~895 KAF



Arizona's 2023 Reductions & Contributions

- Arizona parties contributing water in 2023:



2024 Potential Lower Basin Water Supply



2024 Lake Mead Operations

- Some of the factors that could affect the 2024 Lake Mead Operations include:
 - Magnitude of Lake Powell balancing release
 - Additional System Conservation by Lower Basin water users
 - California's use or creation of Intentionally Created Surplus
- ➞ • Operations pursuant to a final Supplemental Environmental Impact Statement (SEIS)



Draft SEIS Alternatives

- The Draft SEIS was published in the Federal Register on April 14, 2023, and includes two Action Alternatives in addition to a required No-Action Alternative
- **Alternative 1 – “by priority”**
 - Reductions pursuant to '07 Guidelines and DCP, plus additional cuts by an interpretation of priority under the Law of the River
- **Alternative 2 – “pro-rata”**
 - Uniform percent reductions applied to all users based on 2021 consumptive use, plus reductions pursuant to '07 Guidelines and DCP
 - Includes a potential 500 KAF of additional releases from Upper Basin reservoirs



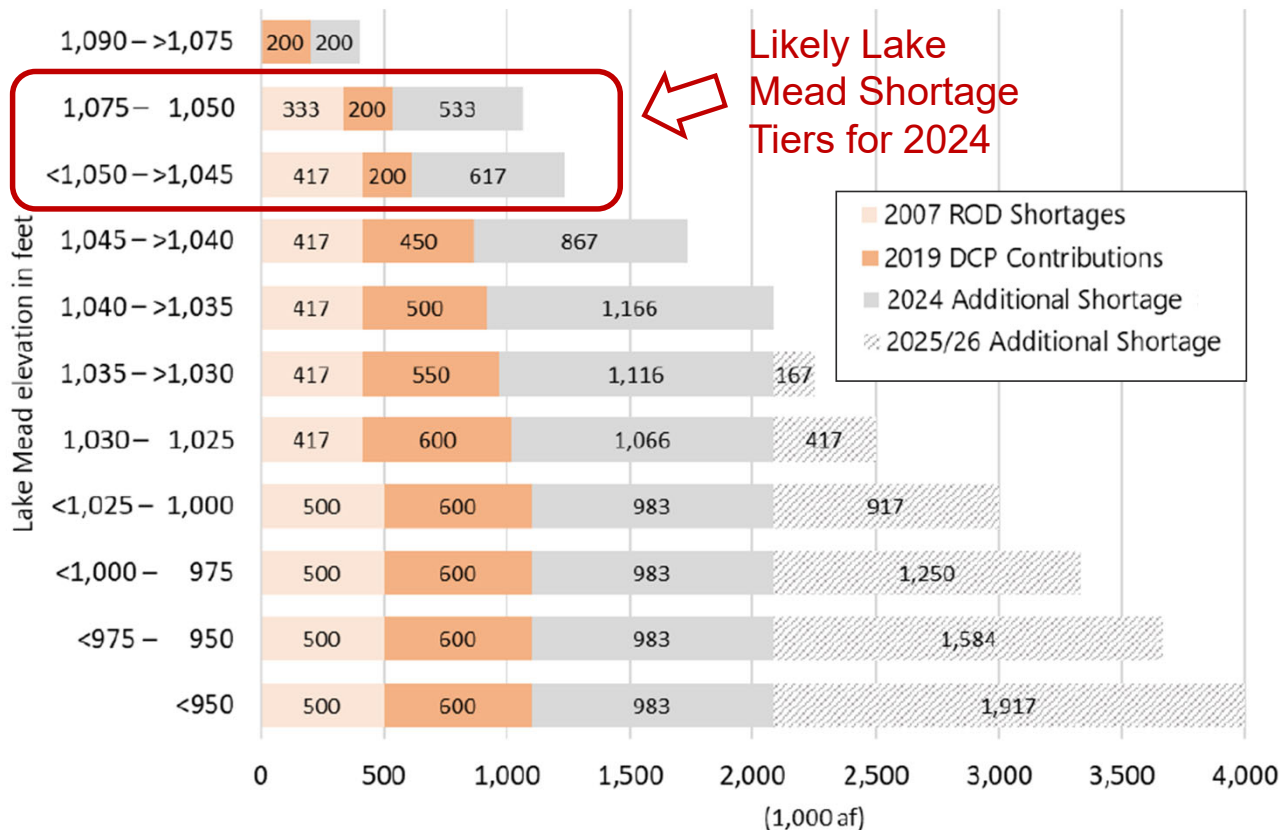
Powell Operations Modeled in Draft SEIS

	Current	Alternatives 1 & 2
Projected 2024 elevation range for Lake Powell	Mid-Elevation Release Tier Release 7.48 maf; if Lake Mead <1,025 feet, release 8.23 maf	Lower Elevation Release Tier Set initial release: 6.0 maf; adjust releases based on April Lake Powell end-of-water-year elevation projection: ≥3,575 feet, release 8.23 maf <3,575 feet AND ≥3,550 feet, release 7.48 maf <3,550 feet AND ≥3,525 feet, release 7.0 maf
	Lower Elevation Balancing Tier Balance contents with a minimum/maximum release of 7.0/9.5 maf	<3,525 feet AND ≥3,500 feet, maintain release of 6.0 maf <3,500 feet, then reduce releases (gains equals losses) such that Lake Powell ends the operating year at 3,500 feet
		Protection Level <3,500 feet in any month, reduce releases (gains equals losses) such that Lake Powell ends the operating year at 3,500 feet

- New **Lower Elevation Release Tier**
 - Absolute Protect 3,500'
 - Releases of 6 MAF or less are contemplated
- Powell operations are nearly identical for Alternatives 1 and 2
 - Alternative 2 considers up to 500 KAF of releases from Upper Basin reservoirs if Powell Elevation < 3,525'



Mead Operations Modeled in Draft SEIS



- The draft SEIS modeled Additional Shortage reductions
 - **533 KAF under Tier 1**
 - **617 KAF under Tier 2a**
- Those reductions are then distributed differently under the two Action Alternatives

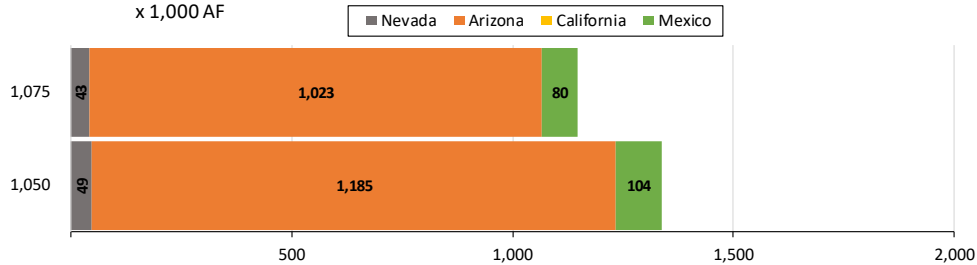
Reductions Modeled in Draft SEIS

For range of Lake Mead elevations likely in 2024

Alternative 1

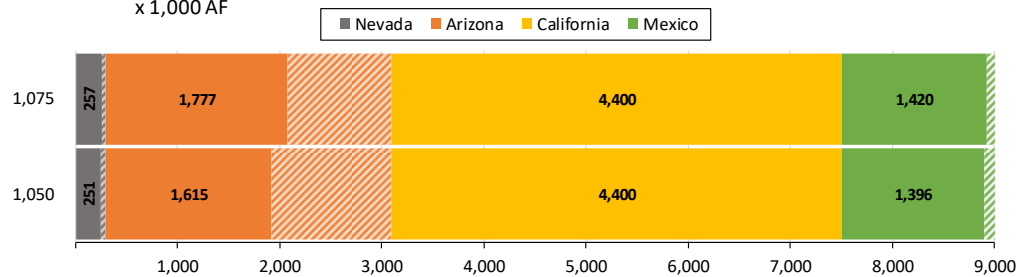
Reductions by Lower Basin State and Mexico

x 1,000 AF



Available as Compared to Apportionments

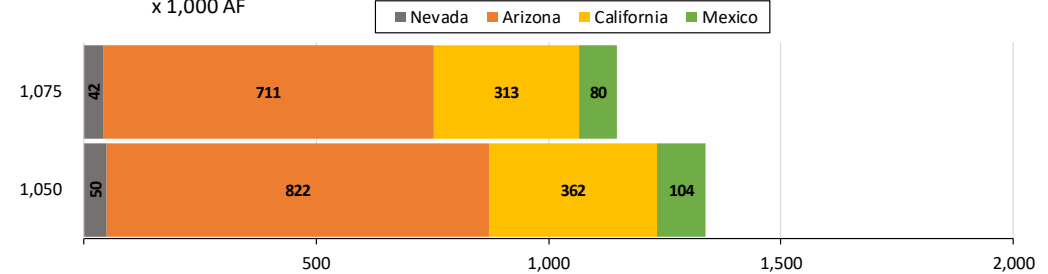
x 1,000 AF



Alternative 2

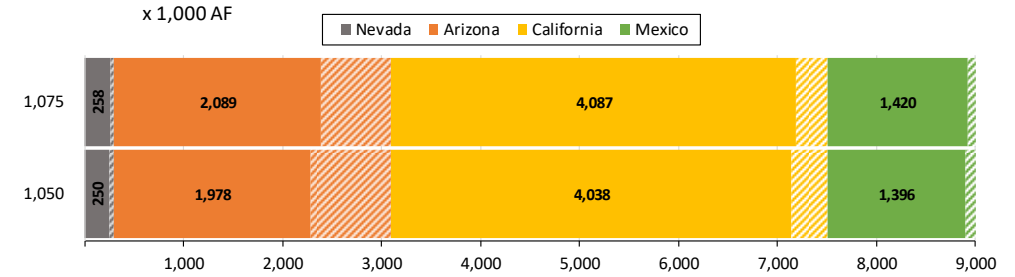
Reductions by Lower Basin State and Mexico

x 1,000 AF



Available as Compared to Apportionments

x 1,000 AF



Provisional data; subject to change

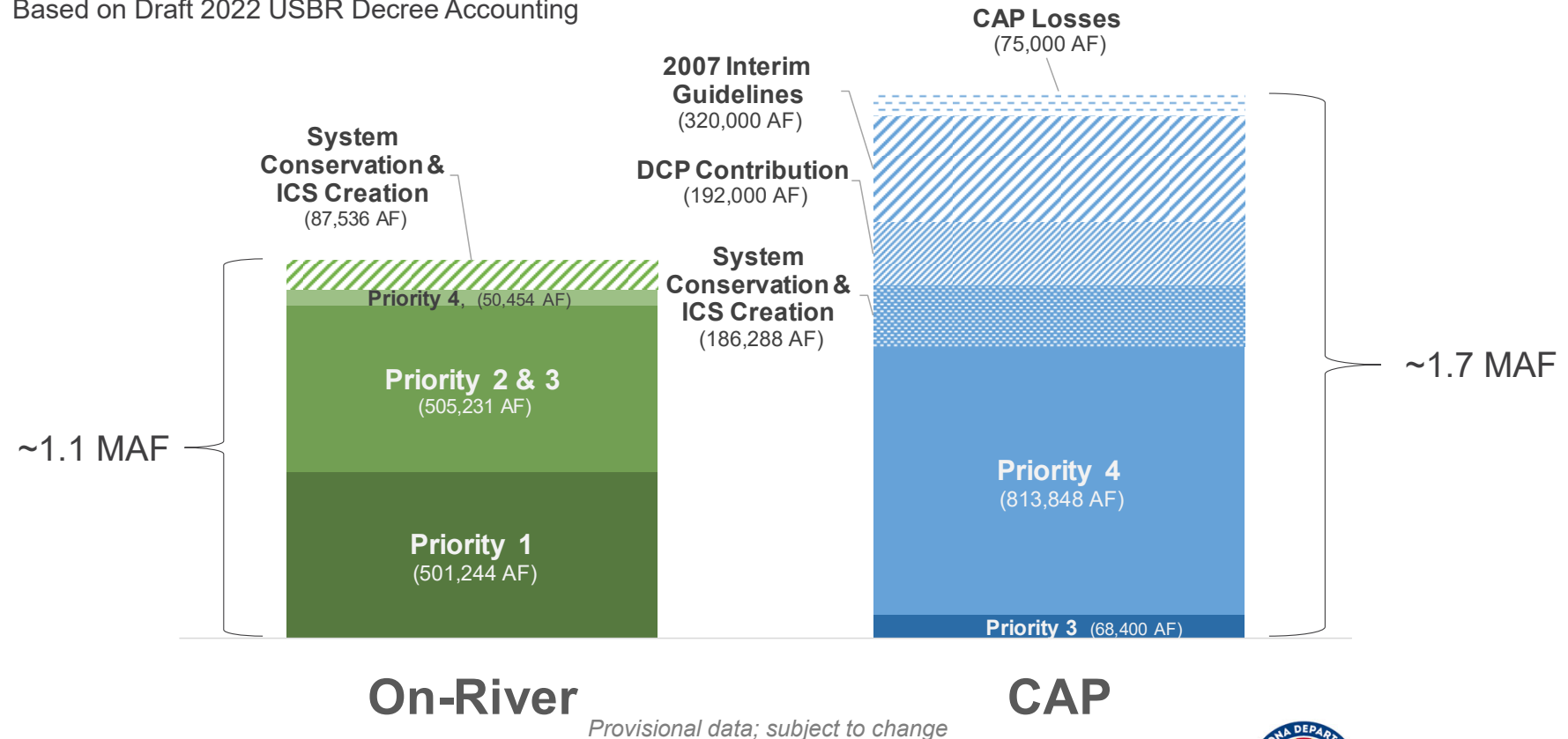


2024 Potential Arizona Water Supply Outlook



Arizona's Recent Colorado River Use

Based on Draft 2022 USBR Decree Accounting



Provisional data; subject to change

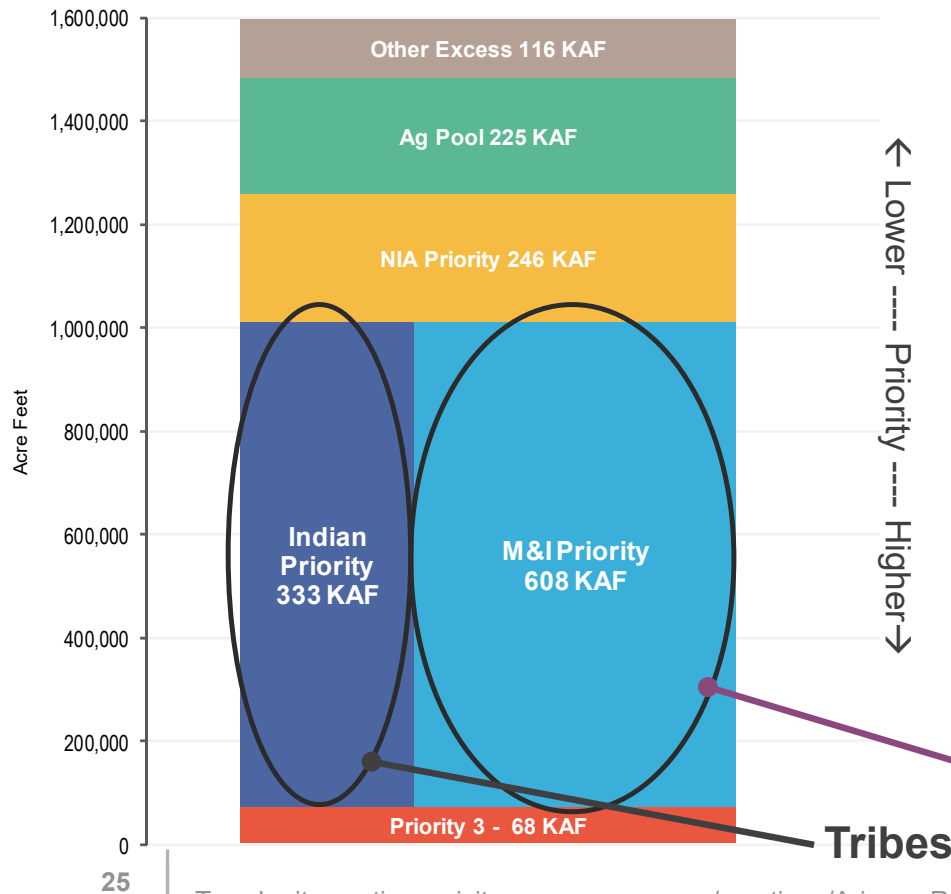


Impacts to Arizona On-River Users

		No Action Alternative	Alternative 1	Alternative 2
1,075' to 1,050'	4 th Priority	None	~32 KAF	7.11%
	P1 - 3	None	None	7.11%
<1,050' to 1,045'	4 th Priority	None	~40 KAF	8.23%
	P1 - 3	None	None	8.23%



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 2024:
 - 1.595 MAF delivery supply prior to reductions
 - Water orders similar to 2023
 - Includes NIA Reallocation

Cities & Industry

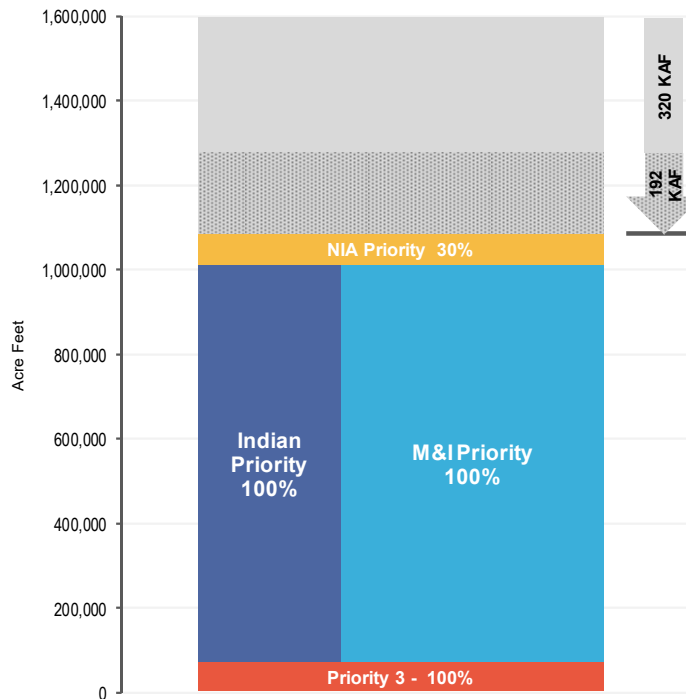
Tribes



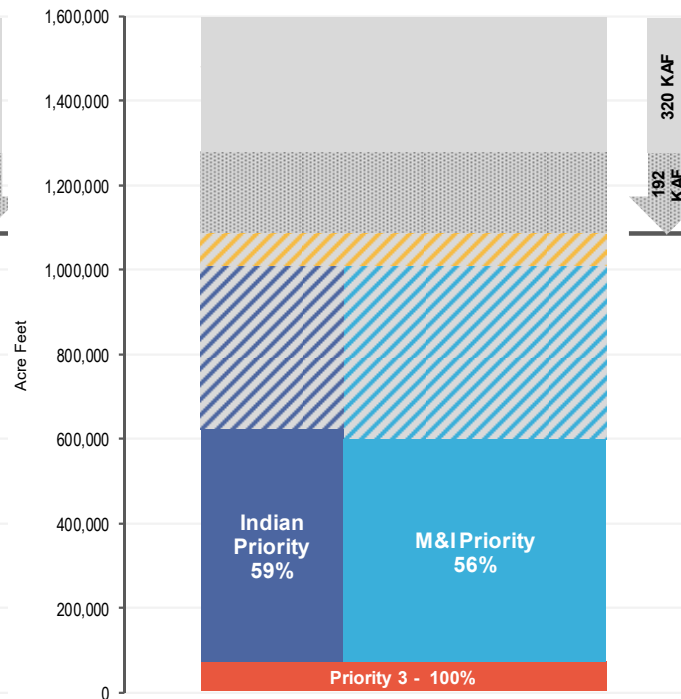
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Mead Elevation 1,075' to 1,050'

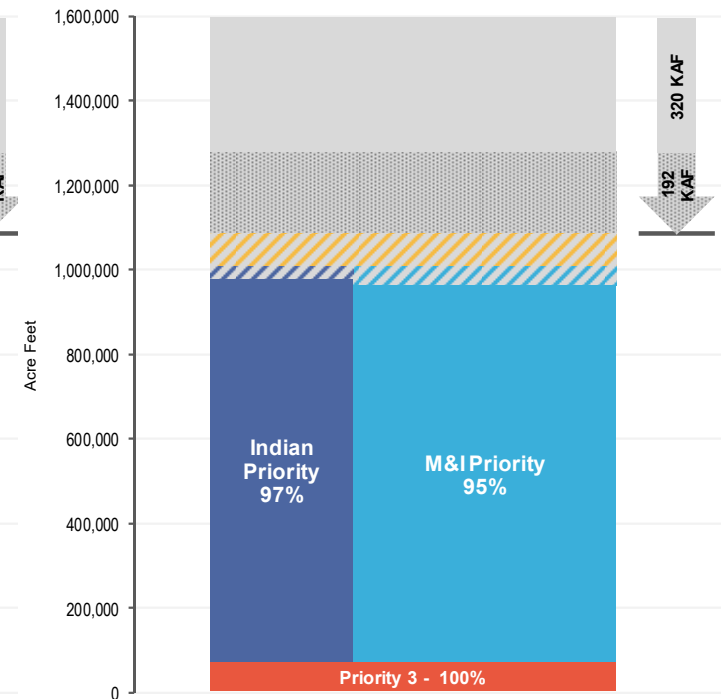
No Action Alternative



Alternative 1



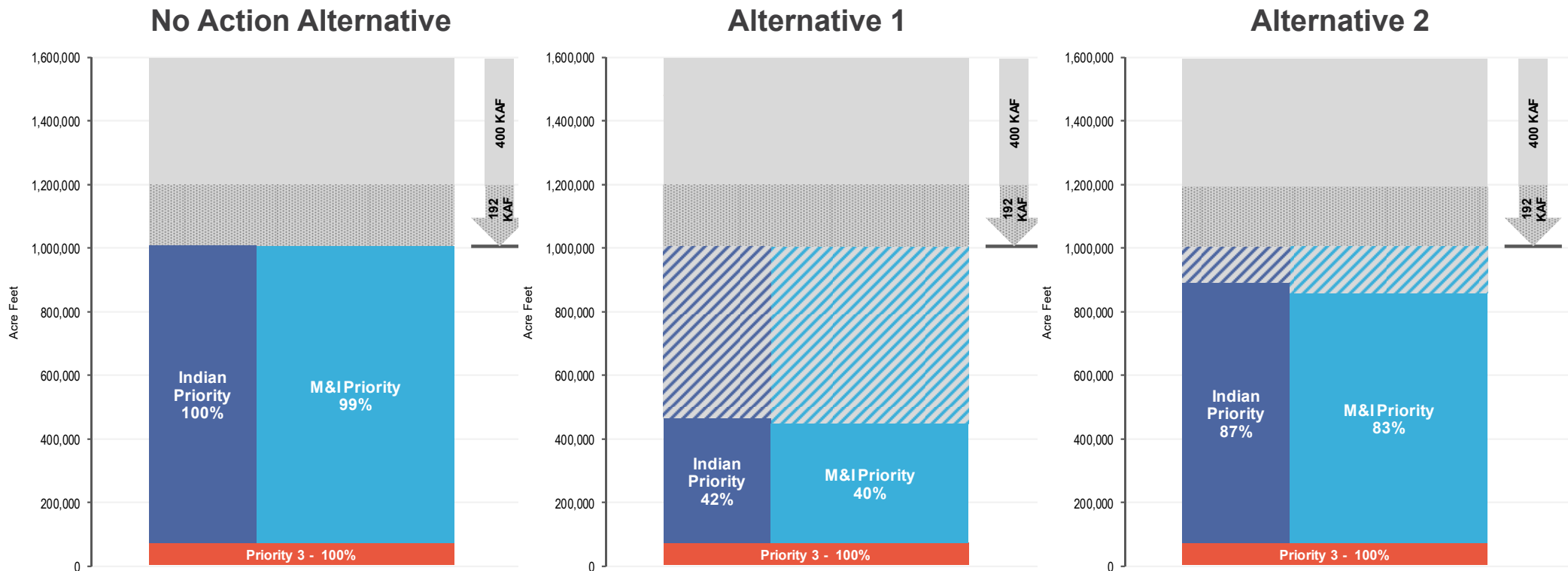
Alternative 2



Provisional data; subject to change



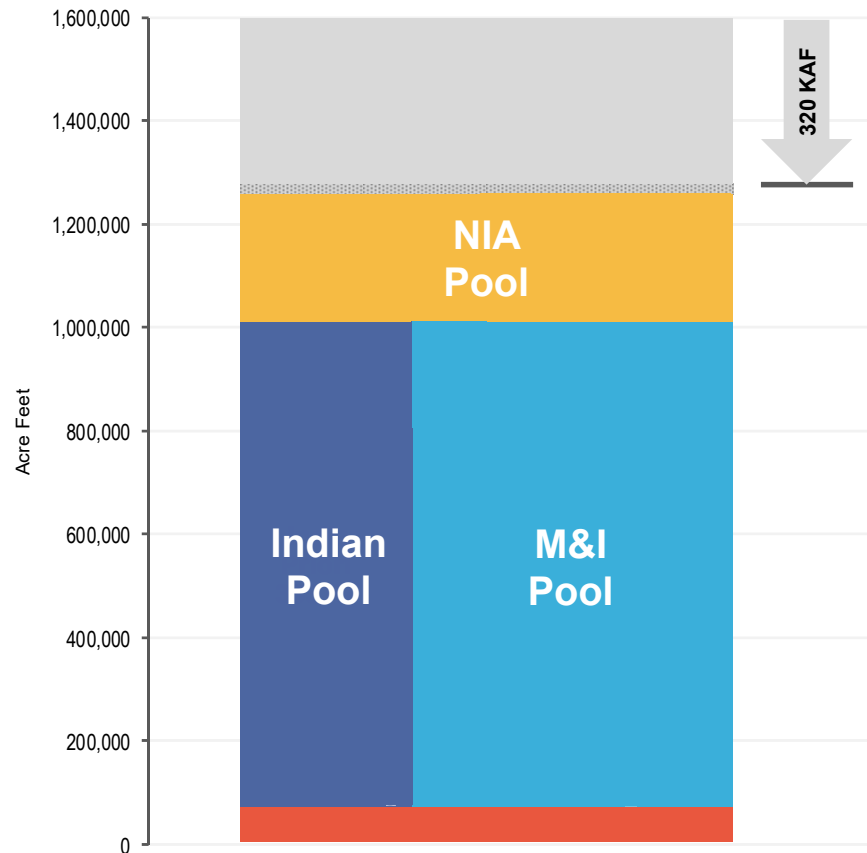
Mead Elevation < 1,050' to 1,045'



Provisional data; subject to change



The Role of Conservation in 2024 (?)



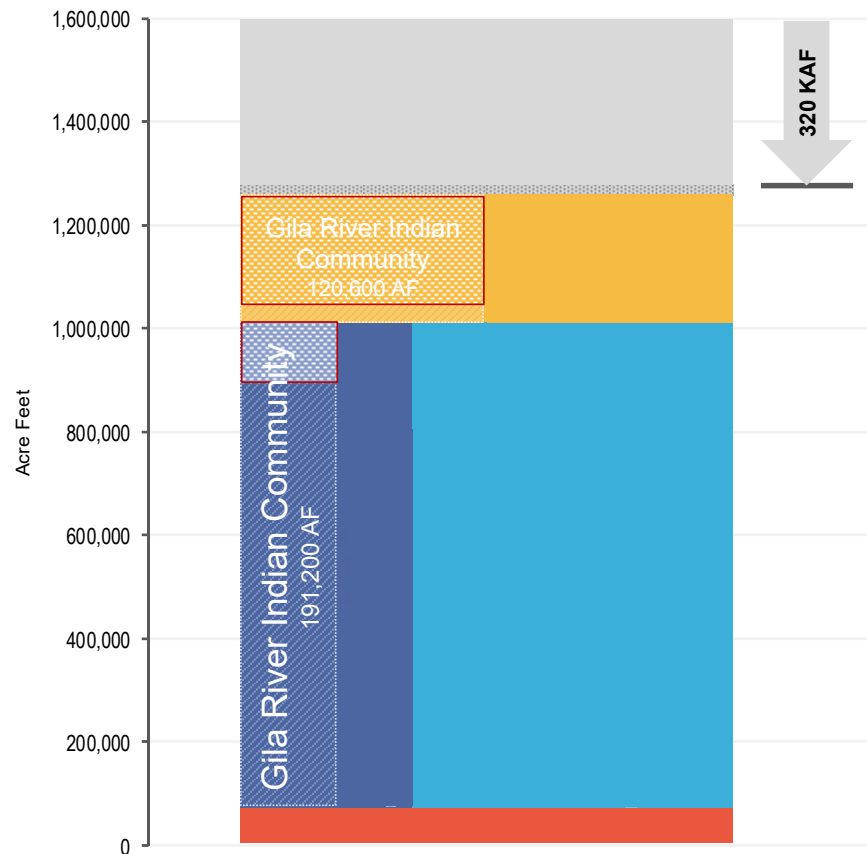
If voluntary conservation is allowed to count towards reductions, then the deepest impacts could be avoided.

- First, start with the mandatory reductions under the 2007 Interim Guidelines...

Provisional data; subject to change



The Role of Conservation in 2024 (?)



Provisional data; subject to change

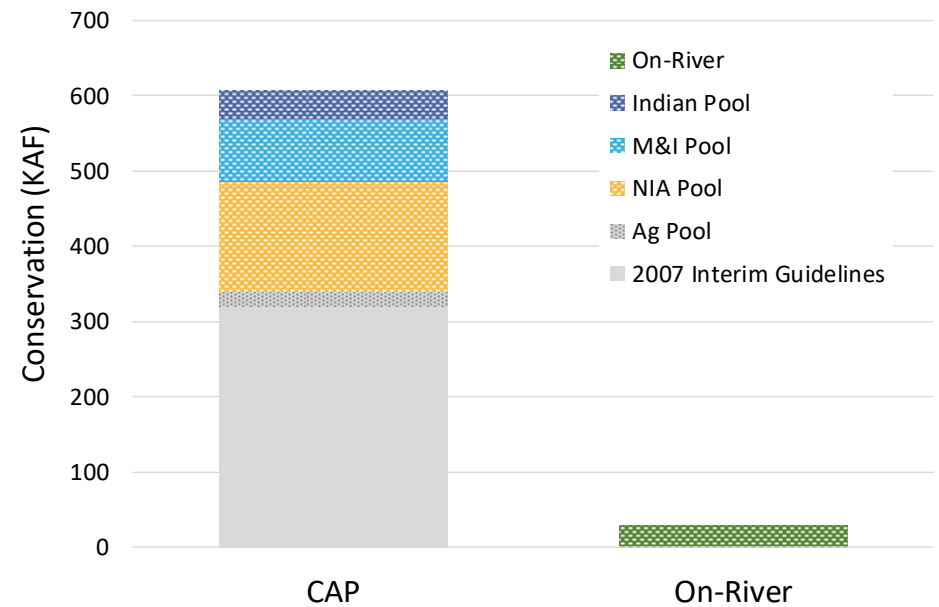
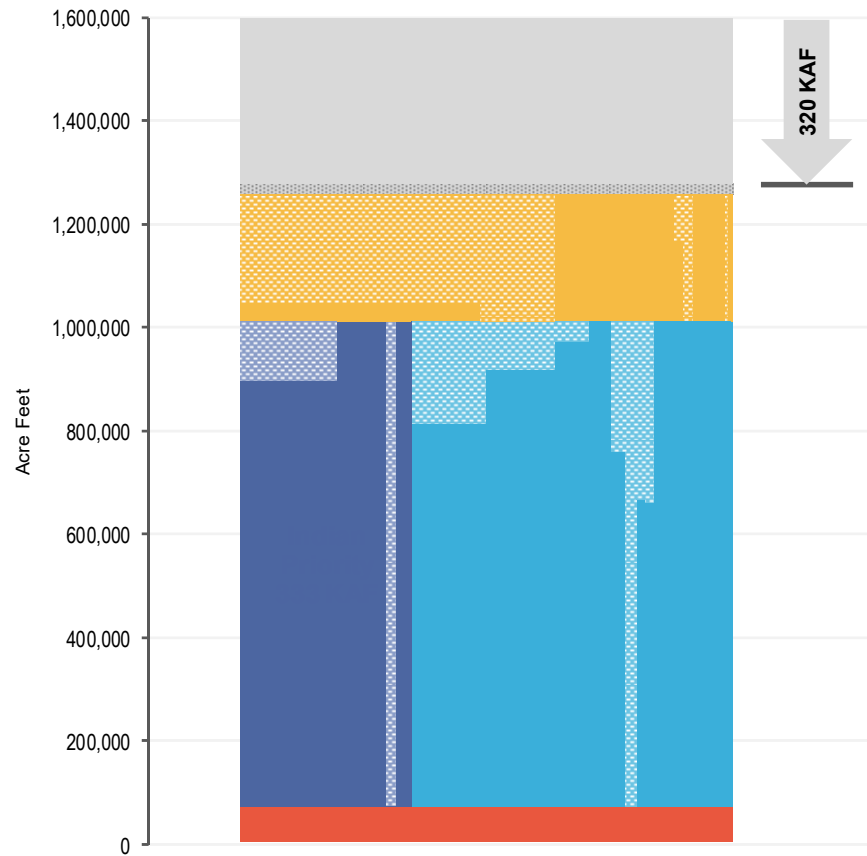
Participants:

- Gila River Indian Community
- City of Phoenix
- City of Tucson
- ASARCO
- Fort McDowell Yavapai Nation
- City of Peoria
- City of Glendale
- City of Scottsdale
- Metro Water
- Town of Gilbert

*Conserving up
to 125,000 AF*



The Role of Conservation in 2024 (?)



Provisional data; subject to change

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Basin States Discussions

- Negotiations are continuing among Basin States
- Looking for a more desirable outcome for all three Lower Basin States than either of the Action Alternatives
- Arizona will continue to seek a collaborative operational scenario to protect the interests of Arizonans and the system
 - Recognizing the improved hydrology in Water Year 2023
 - Minimizes deep cuts



Questions

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

www.cap-az.com/meetings/briefings-roundtables

BRIEFINGS

— 2022 Briefings

1. Stakeholder Rate Briefing – April 14, 2022

- [Invitation](#)
- [Agenda](#)
- [Presentation](#)
- [Video](#)

2. ADWR & CAP Joint Colorado River Shortage Briefing – May 6, 2022

- [Invitation](#)
- [Public Comment](#)

Meetings / Briefings and Roundtables

STAKEHOLDER MEETINGS

As part of a commitment to transparency and open communication, CAP holds a number of **stakeholder meetings** throughout the year to brief water users on various topics, including water operations, rates and the budget.

In addition, as a result of CAWCD Board direction provided through the Customer Service Task Force, CAP staff now hosts **quarterly roundtables** with stakeholders. The topics of the roundtables will be related to upcoming Board action items, and will serve as a way for stakeholders to provide feedback, input and perspectives to be considered in recommendations staff makes to the Board on those topics.

This page will include logistical and supplemental information for all stakeholder meetings and quarterly roundtables. All meetings are open to the public.

[CUSTOMER SERVICE FEEDBACK FORM](#) →

[CAWCD BOARD STRATEGIC PLAN](#) →

QUARTERLY ROUNDTABLES

- [2022 Quarterly Roundtables](#)
- [2021 Quarterly Roundtables](#)
- [2020 Quarterly Roundtables](#)
- [2019 Quarterly Roundtables](#)

BRIEFINGS

— 2022 Briefings

1. Stakeholder Rate Briefing – April 14, 2022

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- [Invitation](#)

→ [2021 Briefings](#)





SHORTAGE PREPAREDNESS BRIEFING

Closing Remarks

For additional information and updates, visit

ADWR: new.azwater.gov

CAP: www.cap-az.com

Reclamation: www.usbr.gov