



# Arizona Association of Women in Water and Agriculture

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# Colorado River in the News

## US West Prepares for Possible 1st Water Shortage Declaration

FILE - In this July 28, 2014, file photo, lightning strikes over Lake Mead near Hoover Dam that impounds Colorado River Area in Arizona. The Bureau of ...

Courthouse News Service · 27d

The New York Times

### Colorado River Reservoirs Are So Low, Government Will Delay Releases

The decision will keep more water in Lake Powell on the Arizona-Utah border, instead of releasing it downstream to Lake Mead. Both reservoirs are at their lowest points.

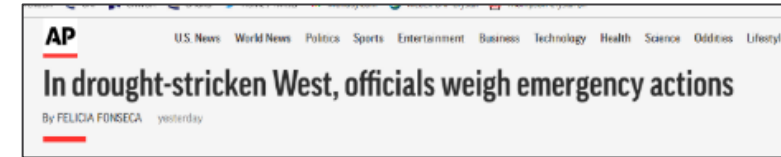
## Lake Mead - "The shrinking lake" - Lake Mead at historic lows - Pictures - CBS News



## Lake Powell is about to drop below a critical level never reached before, as drought rages on

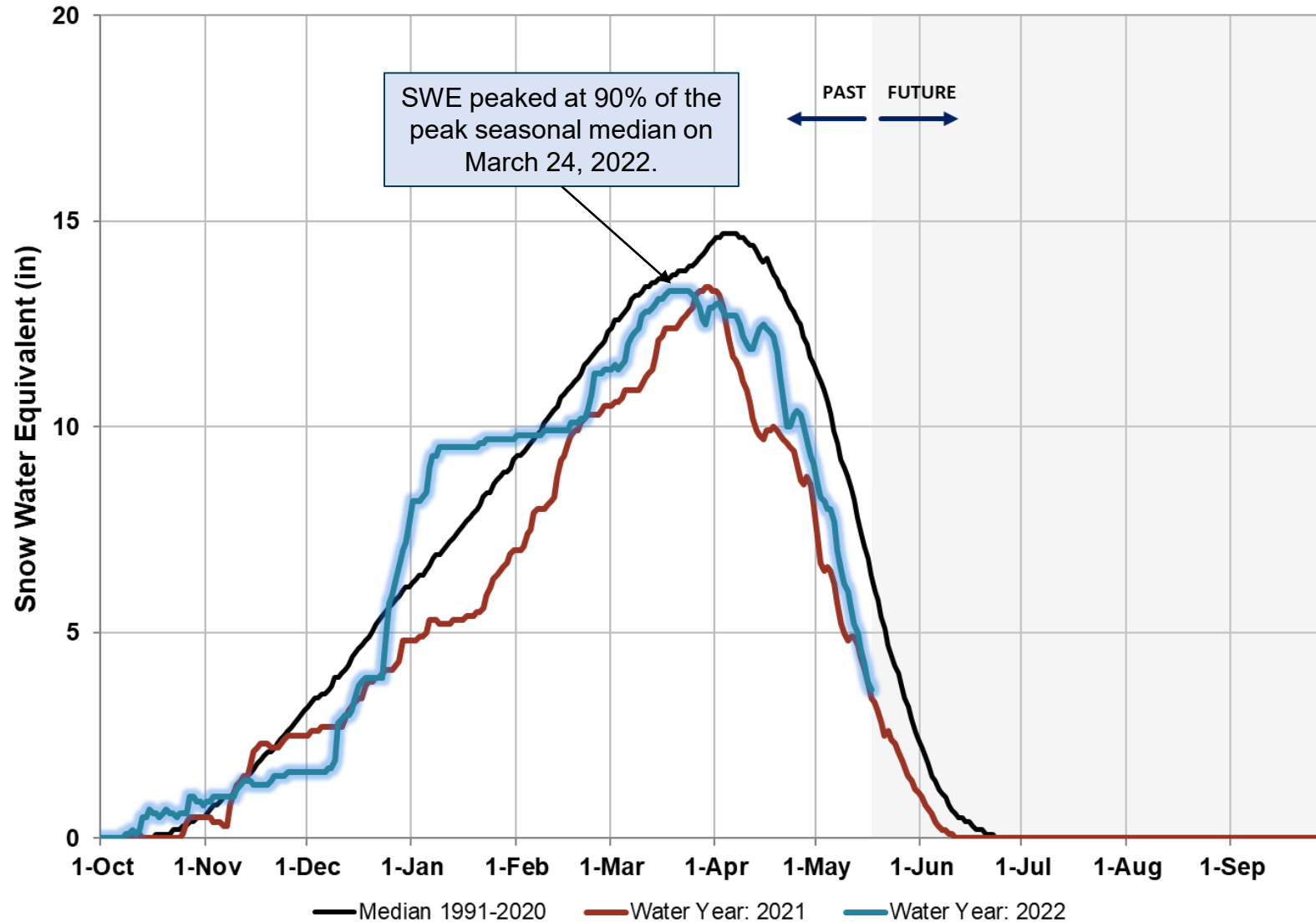
The US Bureau of Reclamation told CNN it is currently anticipating water levels in Lake Powell to reach a significant ...

CNN · 11d

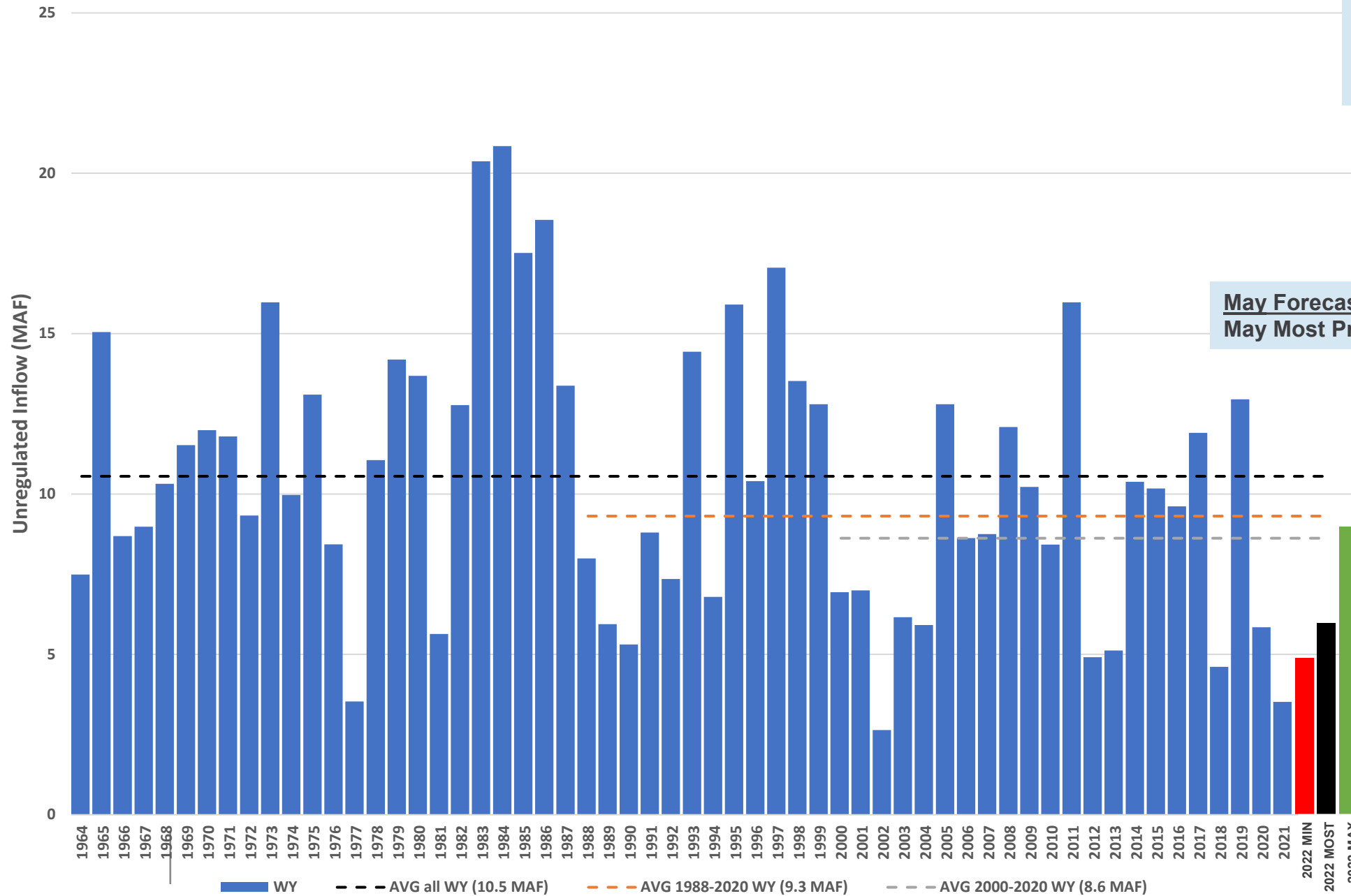


# WY 2022 Snowpack

## Colorado River Basin Above Lake Powell



# Unregulated Inflow to Lake Powell by WY (1964-2021)



**Water Year 2022 Forecast**  
 May Min Prob = 4.93 MAF (51%)  
**May Most Prob = 5.98 MAF (62%)**  
 May Max Prob = 8.98 MAF (94%)

**Difference from April 2022**  
 Min Prob = -0.37 MAF  
**Most Prob = -0.33 MAF**

**May Forecast (Issued May 18)**  
 May Most Prob: 5.71 (60%) decrease of 0.27 MAF



# What have we done so far?

## 2007 Guidelines

- Established common commitment for sharing water surplus and shortage
- Created opportunities to conserve water in Lake Mead, including intentionally created surplus (ICS)
- Formalized procedures for coordinated reservoir operations
- Established elevation triggers for reservoir releases and shortage declaration

## Minute 323

- Signed in 2017 expanding collaboration and sharing between Mexico and the U.S.

## Drought Contingency Plan

- 7 states agreements to protect the Colorado River system through reductions and conservation

## 500+ Plan

- Lower Basin states agreed to target a combined minimum of 1 MAF in Lake Mead to protect against Lake Mead from falling to 1020'

# Role of Conservation in protecting Lake Mead

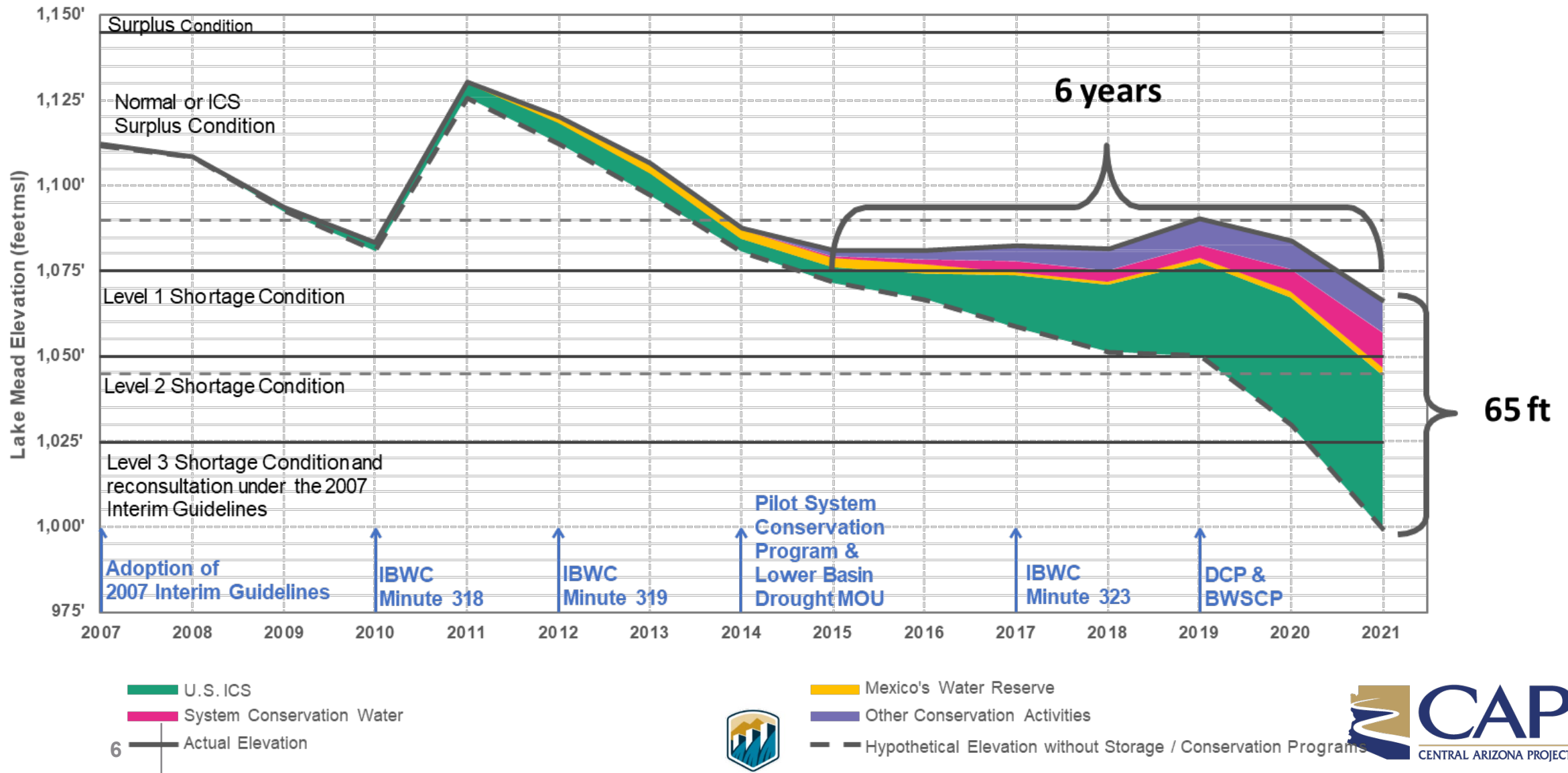


Figure courtesy of the US Bureau of Reclamation



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# 2021 - 500+ Plan

- Goal is to keep Lake Mead from falling to dangerous levels through additional conservation
- Arizona's target of over 200 KAF in 2022 anticipates participation from both on-river and CAP water users
  - Includes both Tribal and non-tribal participants
    - 30 KAF on-river
    - 193 KAF from CAP water users
- All contributions will directly benefit Lake Mead, through system water or storage, including reduced release of intentionally created surplus (ICS)
- CAP and ADWR are providing funding, and have established guiding principles for Arizona's contributions
  - ▪ Voluntary ▪ Temporary ▪ Compensated



# Actions in Arizona in 2022

○ Tier 1 Guidelines shortage reduction:	320 KAF
○ Tier 1 DCP contribution:	192 KAF
○ 500+ Plan conservation:	~214 KAF*
○ Other conservation actions:	~86 KAF
<b>Total:</b>	<b>~812 KAF</b>

\* 500+ Plan Funding – US, ADWR, CAWCD, Metropolitan Water District of Southern California, Southern Nevada Water Authority



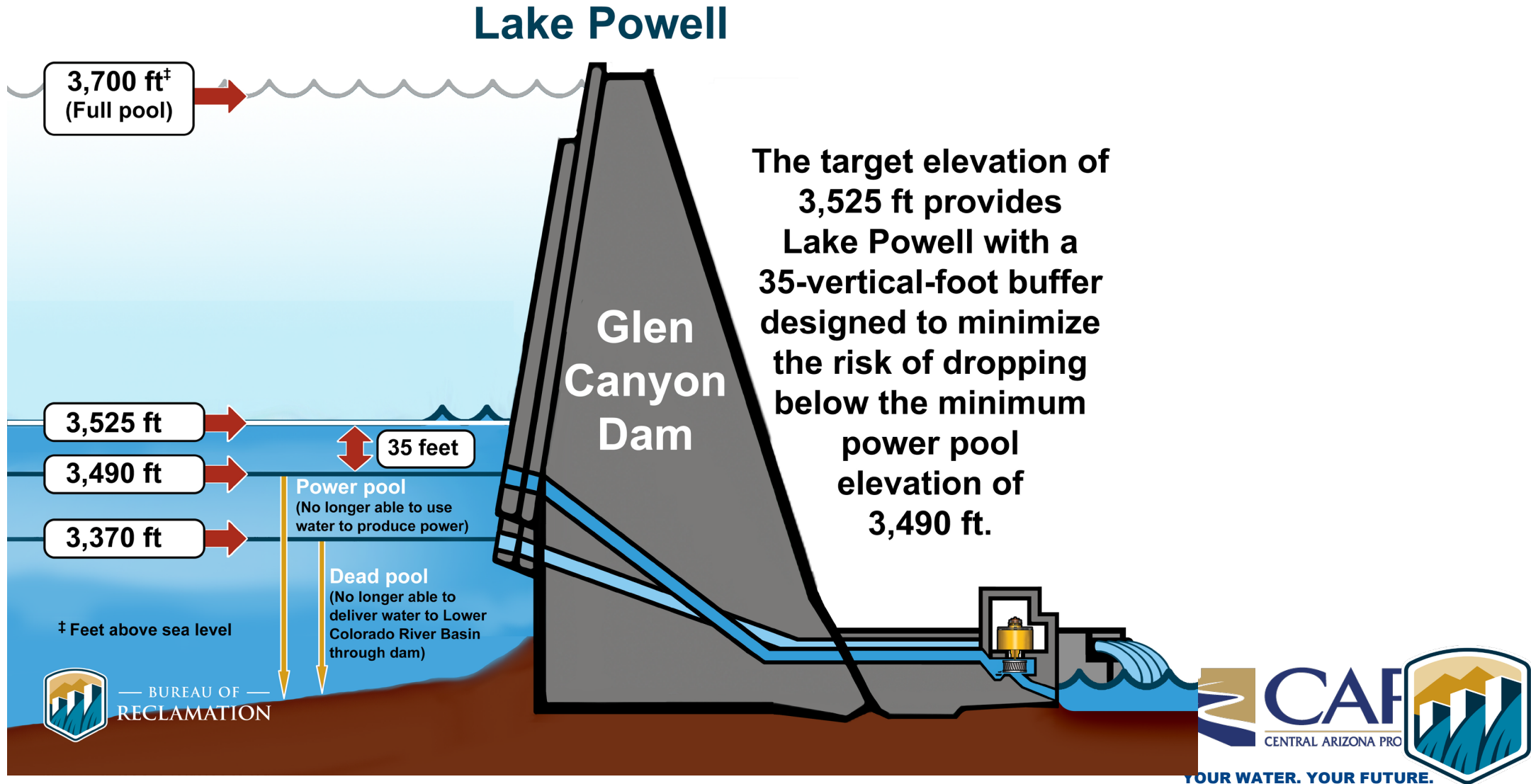


# Lake Powell Operational Uncertainty

- Prolonged drought, and low runoff conditions have depleted storage conditions
- At current levels, Glen Canyon Dam facilities face unprecedented operational reliability challenges
  - Below 3490' Water releases could only be made through River Outlet Works
  - Hydropower operations would be adversely impacted

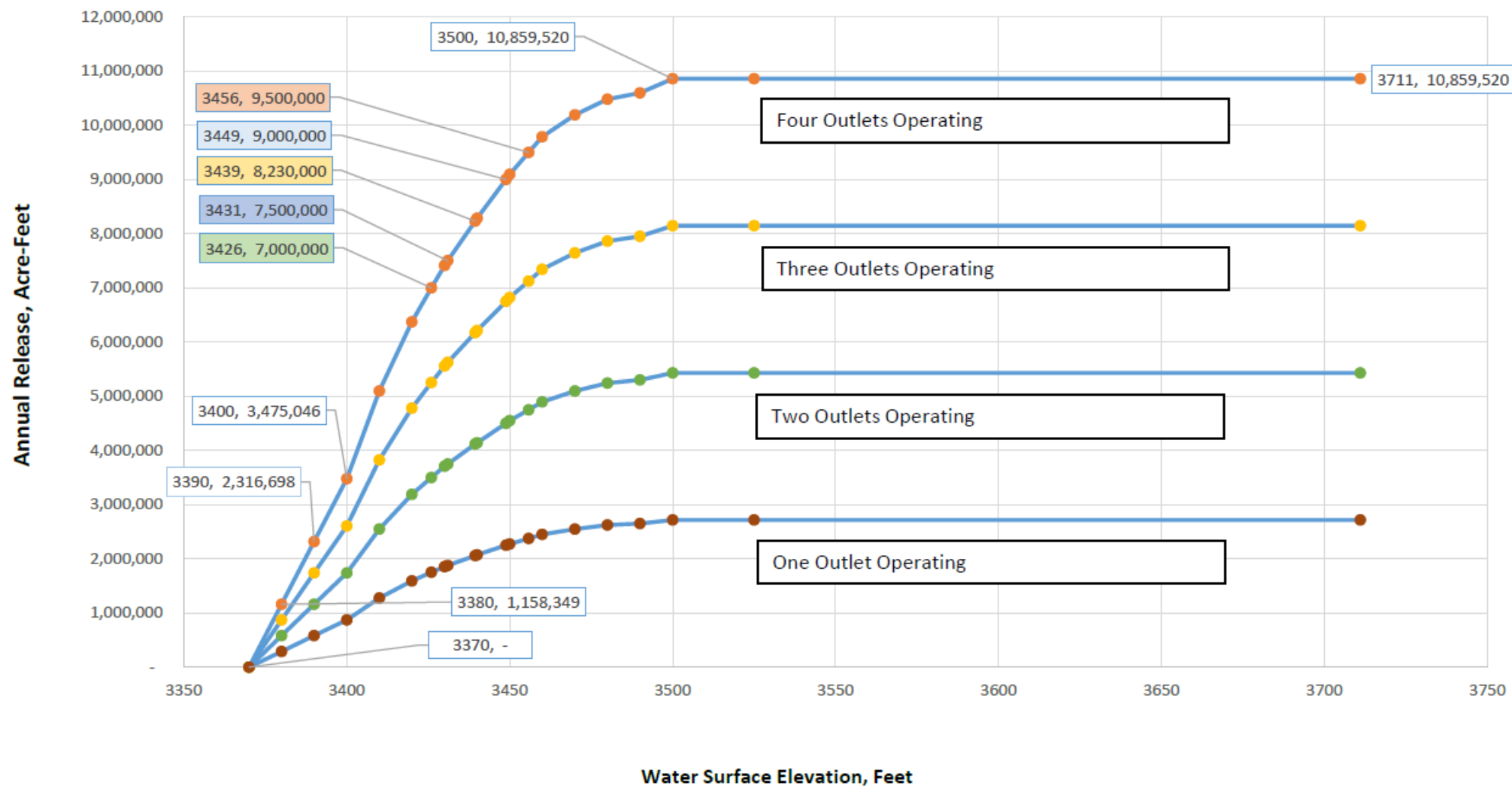
The Department of the Interior has consulted with the Basin States on actions to protect the integrity of Glen Canyon Dam infrastructure, and to ensure water releases to the Lower Basin continue.

# Lake Powell – Key Elevations



# Outlet Works – Release Capacity

Glen Canyon Dam Bypass Maxium Release Capacity Through Bypass



# Actions to Preserve Delivery Capacity from Lake Powell

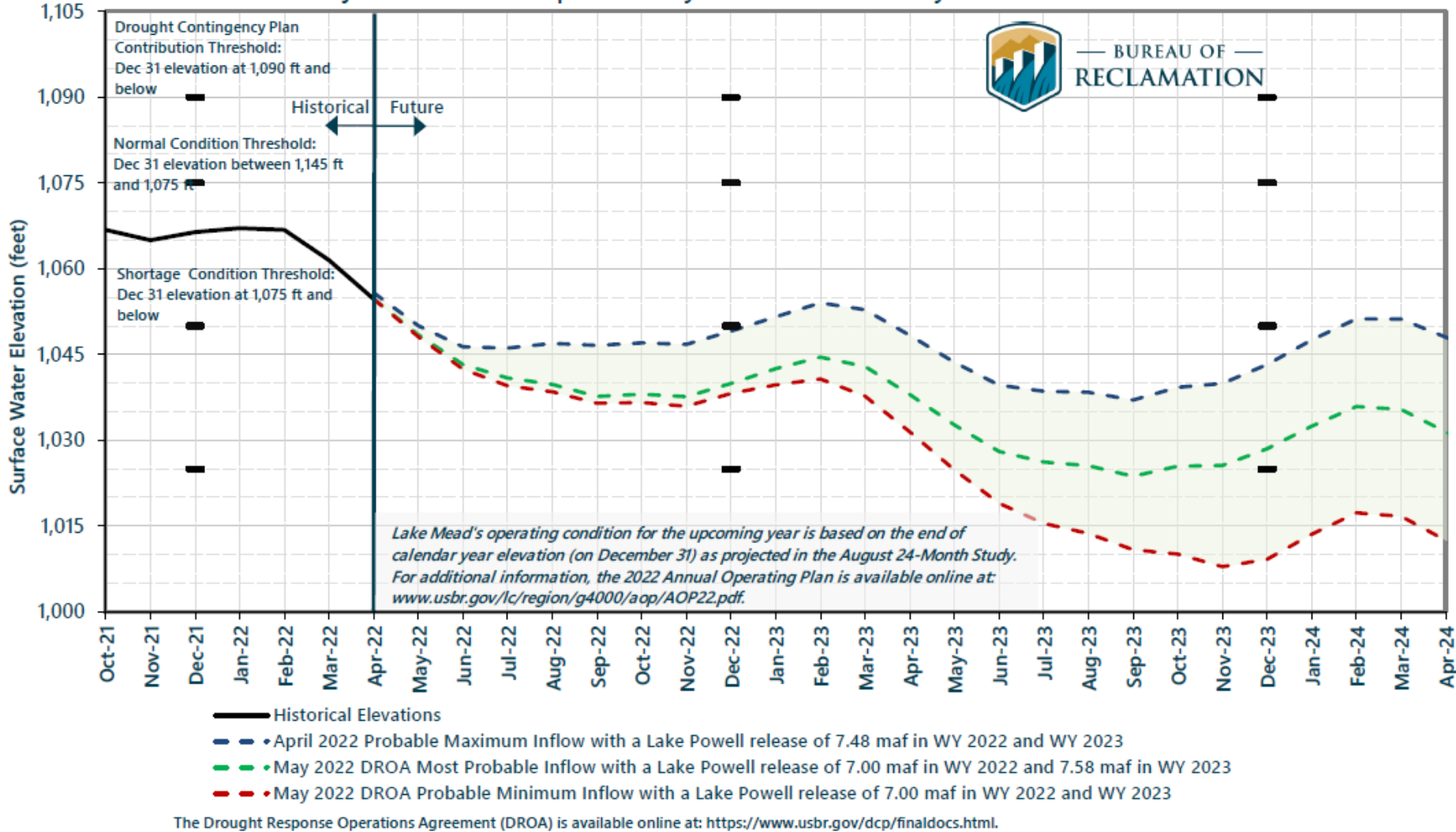
500 KAF will be released from Flaming Gorge Reservoir to Lake Powell, pursuant to the Drought Response Operations Agreement (“DROA”) over the next 12 months

Reclamation will hold 480 KAF in Lake Powell, resulting in a release of 7.0 MAF to Lake Mead in Water Year 2022, rather than 7.48 MAF

- Tier/shortage determinations to be made as if the 480 KAF had been released from Glen Canyon Dam in WY 2022

# Lake Mead End of Month Elevations

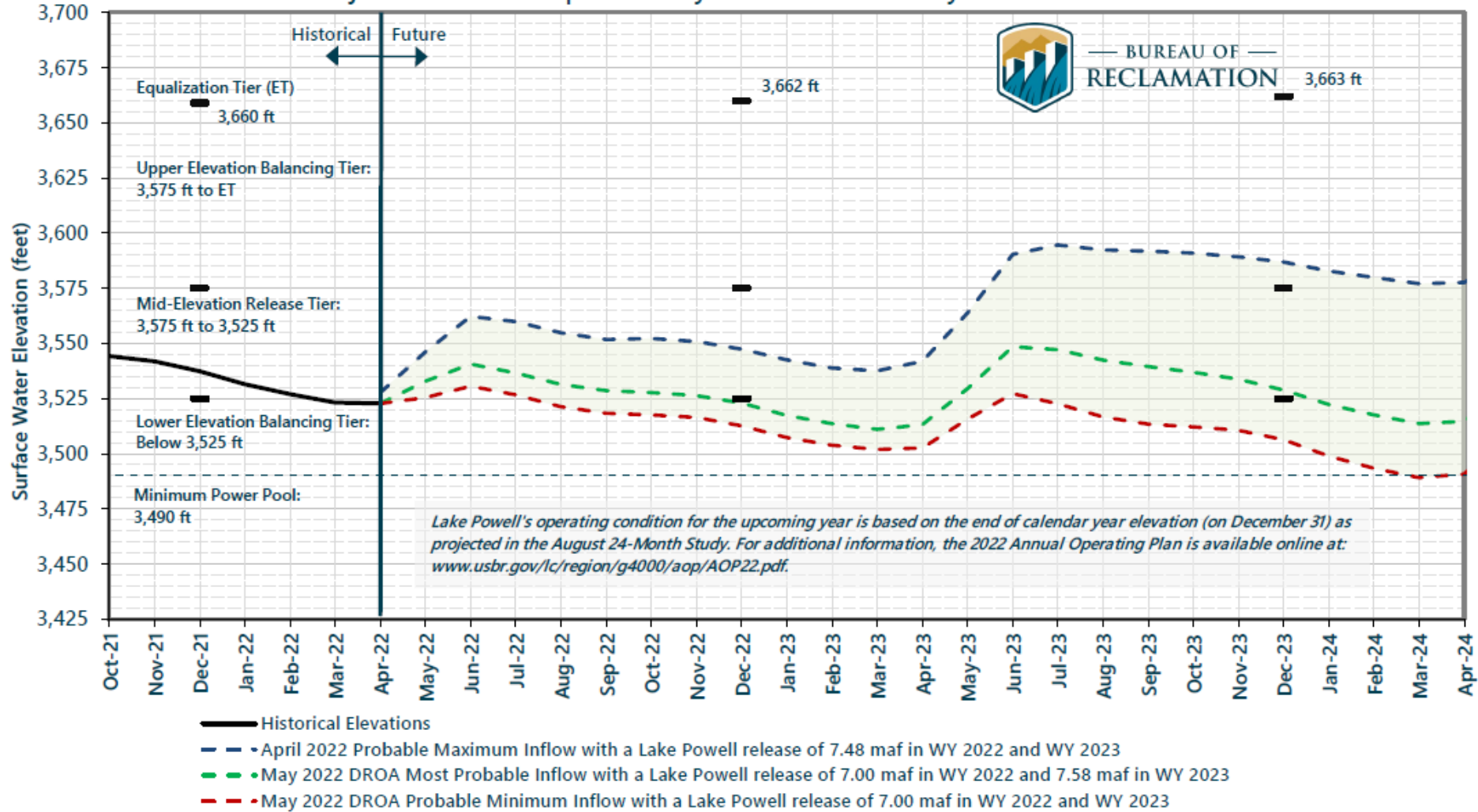
Projections from the April and May 2022 24-Month Study Inflow Scenarios



BUREAU OF RECLAMATION

# Lake Powell End of Month Elevations

Projections from the April and May 2022 24-Month Study Inflow Scenarios



The Drought Response Operations Agreement (DROA) is available online at: <https://www.usbr.gov/dcp/finaldocs.html>.



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# Resources

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



## ARIZONA – STRONGER TOGETHER

We anticipate the first-ever "Tier I" shortage declaration on the Colorado River (beginning in 2025). The shortage will result in a substantial cut to Arizona's share of the river, with reductions falling largely to central Arizona agricultural users. Water supplies for cities will not be affected and Tribal supplies remain secure.

These reductions are painful, but we are prepared. We have long understood the risks to Arizona's Colorado River supplies and have been planning for decades, including the successful efforts to help craft the Drought Contingency Plan for the Colorado River system in 2019.

As we face the prospect of a hotter and drier future, we are confident that with our long history of successful collaboration among our diverse stakeholders – agriculture, cities, tribes, environment and industry – we will continue to find innovative and effective solutions to sustain Arizona's Colorado River supply.

## YOU SHOULD KNOW

- Arizona is prepared for a Colorado River shortage.
- Water interests from throughout the state worked collectively to share the risks and benefits of the Drought Contingency Plan (DCP).
- Together, these efforts reduce the pain of the near-term solutions while addressing risks of future shortages.
- We are taking steps and participating in partnerships to make the river more sustainable during drought and the reality of a hotter and drier future.

While we may have less water coming to Arizona from the Colorado River in 2025, Arizona's water managers and suppliers have been taking measures to prepare and will continue to work to ensure the river remains viable for generations to come.

## WHAT IS A COLORADO RIVER SHORTAGE?

A shortage means a reduction in the Colorado River supply available to Arizona.

In 2020 and 2021, the river has been operating in a "Tier Two" status, requiring the State to storage 900,000 acre-feet of water (a 3.9-billion acre-foot annual entitlement to water total). This reduction is coming entirely from the Central Arizona Project (CAP) system. Based on the current hydrology, it is likely that the U.S. Bureau of Reclamation will announce a "Tier I" shortage level for 2025. This will require Arizona to further reduce users to a total of 900,000 acre-feet, again borne almost entirely by the CAP system.

The "Tier I" reductions will equate to about 30% of CAP's normal supply, about 8% of Arizona's Colorado River supply, and less than 1% of Arizona's total water use.



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# Questions

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