

A river under pressure

Colorado River update



Robert C. Cheng
Coachella Valley Water District

Water
COUNTS
ACADEMY

Colorado River in the news

Officials fear ‘complete doomsday scenario’ for drought-stricken Colorado River

By Joshua Partlow
December 1, 2022 at 6:00 a.m. EST

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“We are not going to be afraid to litigate” to protect Colorado’s water rights, AG says

Attorney General Phil Weiser said era of lower basin states over-consuming Colorado River “is over”

ENVIRONMENT

California drought 2022: Two water districts eye hefty Colorado River cuts



Janet Wilson

Palm Springs Desert Sun

Published 2:21 p.m. PT Aug. 4, 2022 | Updated 12:32 p.m. PT Aug. 7, 2022

A Water War Is Brewing Over the Dwindling Colorado River

‘The brink of disaster’: 2023 is a critical year for the Colorado River as reservoirs sink toward ‘dead pool’

By Ella Nilsen and Rachel Ramirez, CNN

Published 7:26 AM EST, Fri December 30, 2022

UTAH THE WEST ENVIRONMENT

A southern Utah mayor’s water warning: ‘We are running out’

The mayor of Ivins says Washington County needs to address unfettered growth and its impact on drought

Feds Will Cut States’ Access to Colorado River Water

STATELINE UPDATE | June 15, 2022 | By: Matt Vasilogambros | Read time: 2 min

THE

NATIONAL LAW REVIEW

U.S. Interior Department Initiates Actions to Protect Colorado River System, Reduce Deliveries

Tuesday, November 8, 2022

ENVIRONMENT

Growers brace to give up some Colorado River water

BY ALASTAIR BLAND
JANUARY 17, 2023

Twitter Facebook WhatsApp

EXTREME WEATHER | Published January 16, 2023 5:44pm EST

Scottsdale, Arizona, cuts off water to suburb in response to Colorado River drought

It's been over two weeks since the water supply was cut off from an unincorporated community outside of Scottsdale. However, the drought is a problem two-decades in the making.

Feds will spend billions to boost drought-stricken Colorado River system

KUNC | By Alex Hager

Published September 23, 2022 at 6:16 PM MDT

California takes major step to cut back on use of Colorado River water

By MARIANNE GOODLAND marianne.goodland@coloradopolitics.com Oct 5, 2022 Updated Dec 29, 2022 0



Killing the Colorado

The Water Crisis in the West

Feds begin ‘expedited’ process to help save drought-stricken Colorado River



By Ella Nilsen, CNN

Updated 4:46 PM EDT, Fri October 28, 2022

Increasing pressures on Colorado River water in New Mexico

Colorado River cutbacks have led to several consecutive years when New Mexico entities have received far less water than expected.

Supply update



'The brink of disaster': 2023 is a critical year for the Colorado River as reservoirs sink toward 'dead pool'

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By [Joshua Partlow](#)

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Clean Energy

The 'Power of Aridity' is Bringing a Colorado River Dam to its Knees

For the millions of people who depend on Glen Canyon Dam for electricity, drinking water and irrigation of crops, two decades of drought have brought a reckoning.



Lake Mead photographed from the Hoover Dam in Nevada Image by Chris Winsor via Getty Images



Killing the Colorado

The Water Crisis in the West



1869 - 1871

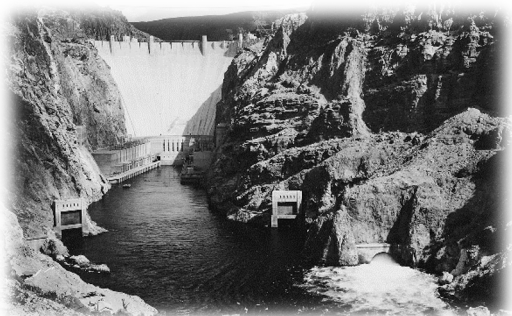


CR background

Colorado River Compact 1922



1928



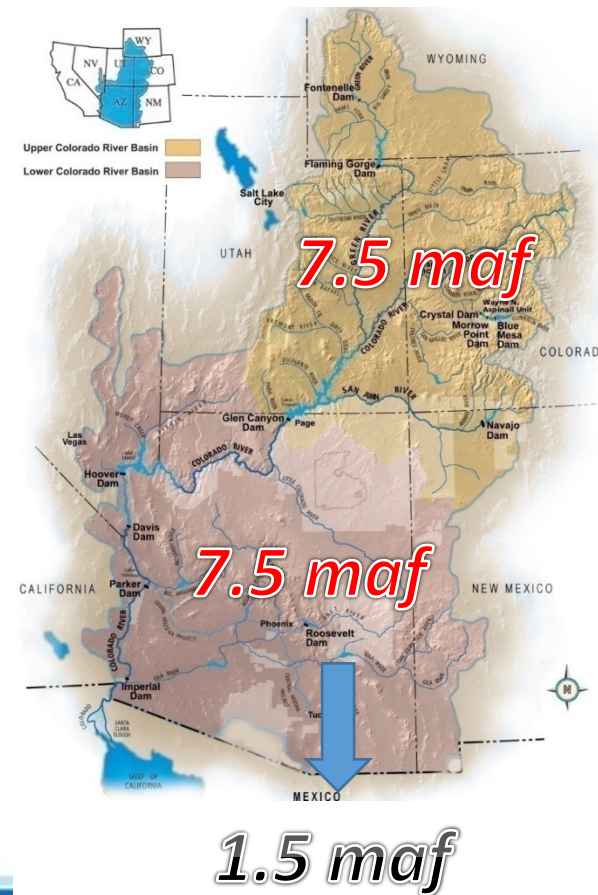
Boulder Canyon Project Act

2007

RECLAMATION
Managing Water in the West

Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead Draft EIS

- “Hardest working river in the West”
- Supplies 40 M users in 7 states & Mexico
- 15 million af (maf) w/in U.S. & 1.5 maf to Mexico
- CVWD formed in 1918 to obtain federal Colorado River water supply
- ~80% of CVWD’s imported supply



Your water is our promise

Working relationships

- Colorado River issues historically resolved collaboratively through stakeholders
 - ✓ *includes Federal government*
- CVWD has history of working cooperatively with other parties
 - ✓ *2003 Quantification Settlement Agreement*
 - ✓ *2007 Interim Guidelines*
 - ✓ *2019 Drought Contingency Plan*
 - ✓ *Renegotiations of 2007 Interim Guidelines*

California



Basin States



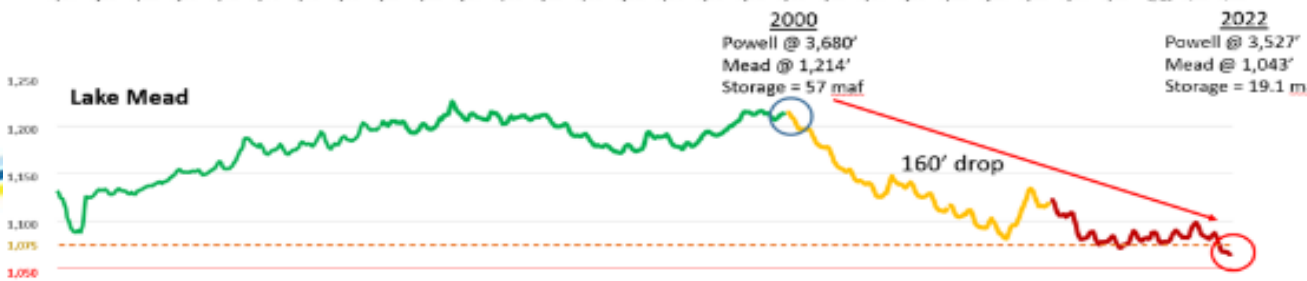
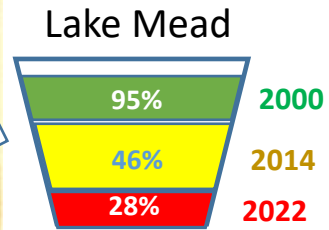
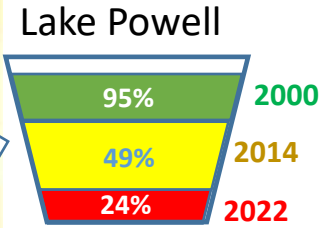
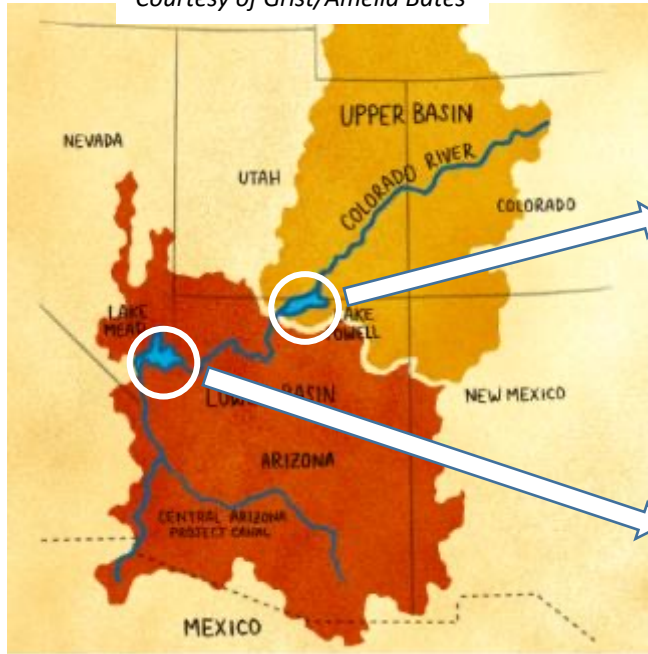
Delivery of water to Mexico
(Minute 32x)



Your water is our promise

State of Colorado River

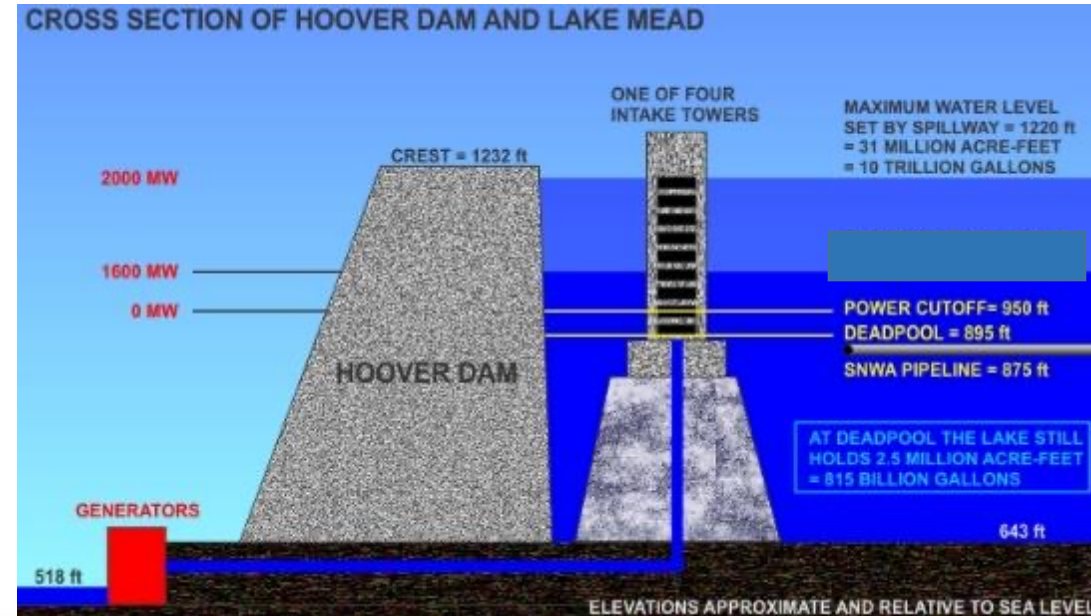
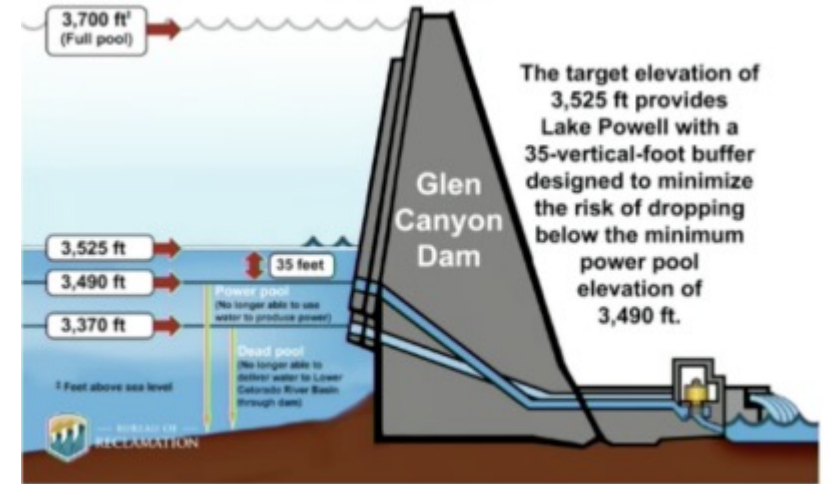
Courtesy of Grist/Amelia Bates



Colorado River

- In drought since 2000
- Possibility of Lake Powell & Lake Mead dropping to non-operable levels without additional actions
- 2 – 4 maf reductions needed from 2023 – 26, how to achieve?

Lake Powell – Key Elevations



Your water is our promise

Courtesy of sky-lights.org

Ag vs. Urban, Sr. Rights vs. Health & Safety

Agriculture (Senior rights)

Urban (Junior rights)

CLIMATE & ENVIRONMENT

These farmers dominate the Colorado River. Cross them at your peril

NEWS > ENVIRONMENT • Explainer, News

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Agriculture uses more Colorado River water than anything else, how can the industry change?

“Somebody has to start it,” Becky Mitchell, director of the Colorado Water Conservation Board, said.

Arizona’s alfalfa is essential, water crisis solution that leads to food supply issue is no fix

By: Guest Opinion | January 23, 2023

Department of Interior needs to review agricultural use of water amid negotiations for Colorado River cuts

Bruce Babbitt | January 11th, 2023 at 2:00 AM

Opinion

SHARE    

How Pinal County farmers are dealing with historic cuts to Arizona’s Colorado River water supply

While Arizona lost 18% of its share in 2022, it’s expected to lose an additional 3% in 2023.

NEWS > ENVIRONMENT • News

How can cities across the West grow to use Colorado River water sustainably?

“We can’t just assume the water’s gonna be there,” Estevan López, the Upper Colorado River Compact Commissioner for New Mexico, said.

THE WEST ENVIRONMENT UTAH

Arizona needs new homes — where will they get the water?



The decision behind the 130% available water rule for annexation in Colorado Springs

Response & Actions

Feds Will Cut States' Access to Colorado River Water

STATELINE UPDATE | June 15, 2022 | By: [Matt Vasilogambros](#) | Read time: 2 min

THE NATIONAL LAW REVIEW

U.S. Interior Department Initiates Actions to Protect Colorado River System, Reduce Deliveries

Tuesday, November 8, 2022

In a water deficit, Arizona contemplates a future without Colorado River access

Central Arizona Project leaders say policymakers should prepare for the worst-case scenario.

EXTREME WEATHER | Published January 16, 2023 5:44pm EST

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A southern Utah mayor's water warning: 'We are running out'
The mayor of Ivins says Washington County needs to address unfettered growth and its impact on drought
By Kyle Dunphey | Jan 23, 2023, 4:04pm PST

Feds begin 'expedited' process to help save drought-stricken Colorado River

 By [Ella Nilsen](#), CNN
Updated 4:46 PM EDT, Fri October 28, 2022

Increasing pressures on Colorado River water in New Mexico
Colorado River cutbacks have led to several consecutive years when New Mexico entities have received far less water than expected.

Inflation Reduction Act funding

(opportunities to conserve)

- Component 1a – up to \$400/af fixed price *(available now)*
- Component 1b – variable pricing *(available now)*
- **Component 2 – long-term system efficiency improvements for long-term system conservation *(available in 2023)***

Turf removal



Moisture sensors



Efficient irrigation

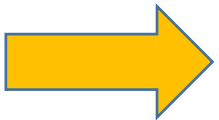




Reopening 2007 Interim Guidelines

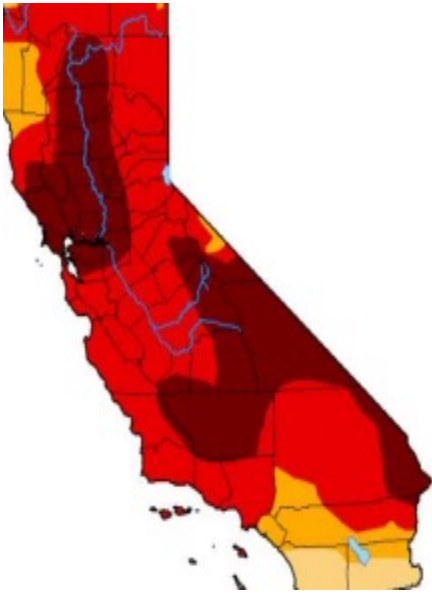


- Modify 2007 operating guidelines to adapt to worsening conditions
 - ✓ *published in Fed Register on Nov 18, 2022*
- Goal is to protect critical operating levels
 - ✓ *3,490' at Lake Powell (min level for power generation)*
 - ✓ *950' at Lake Mead (min level for power generation)*
- Analyze following alternatives
 - ✓ *No action (baseline): continued implementation of existing agreements*
 - ✓ *Framework agreement: additional **consensus-based** actions building on actions developed in 2019 Drought Contingency Plan*
 - ✓ *Reservoir Operations Modification: actions adopted under **Secretarial authority** if other alternatives/actions are not sufficient*



CVWD Drought Response

- Implemented Water Shortage Contingency Plan
 - ✓ 6 tiers (<10% to $\geq 50\%$)
 - ✓ activated level 2 & 3 mandatory water conservation actions
 - reduced outdoor water budget by 10%
 - ✓ provided rebates to promote efficiency
 - ✓ enacted drought penalties
- Adopted Colorado River water conservation
 - ✓ Colorado River Water Conservation Program
 - ✓ Replenishment Facilities Curtailment Program
- Conducted public seminars, workshops & classes
 - ✓ education on water conservation



Up to
\$6/sq.ft.

Turf rebate \$3
per square foot

Matching funds available in some cities



Conservation efforts pay off



- Groundwater (municipal)
 - ✓ *landscape plan & irrigation design ordinance*
 - **270,000 af since 2007**
 - ✓ *large landscape smart controllers rebate program*
 - **245,000 af since 2008**
 - ✓ *tiered water rates*
 - **840,000 af between 2009 & 2019**

~119,000 af/yr



- Colorado River water

- ✓ *CVWD's ag among the most efficient in the US (<3.8 af/acre-yr)*
- ✓ *> 60% of customers invested in drip irrigation*
- ✓ *49-mile lining of Coachella Canal (saves 132,000 af/yr)*
- ✓ *Ag water delivery system losses ~5.8% (closed pipes & meters)*



CVWD's contributions

Answering Commissioner Touton's call for 2 - 4 maf/yr

- 9,083 af (500+ Plan, 2022)
- 35,000 af/yr (2023 – 2026)
 - ✓ USBR Component 1a - Compensated Conservation Program
 - ✓ *pending approval*
- 14,000 – 24,500 af/yr (2023 – 2026)
 - ✓ *potential DCP Contributions*
- Salton Sea Commitments (USBR, CNRA, IID, CVWD)
 - ✓ *\$250 M based on conservation efforts*





Making every drop count since 1918

“WHISKEY IS FOR
DRINKING
&
WATER IS FOR
FIGHTING”

- Mark Twain



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