



Urban Water Institute's Annual Conference

August 24, 2023

*Shaping the Future of the
Colorado River*

UWI 2022; This Guy was Wrong





2022: Items Appear as Lake Mead Drops



SNWA's Original Intake



Human Remains Found in Barrel



Ghost Ships Emerge

June 14, 2022: Commissioner Touton Calls for 2 – 4 MAF of Water Reductions in 2023



Fourth year in a row of drought is likely in Southwest after worst 3 on record

By Rachel Ramirez and Stephanie Elam, CNN
Published 7:36 AM EDT, Fri October 7, 2022



Fall of 2022: Drought forecast to get much worse...

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Audio



Frederic J. Brown/AFP/Getty Images

A vehicle drives past the dry, cracked lake bed of drought-stricken Lake Mead in September.

Search NOAA sites



Home / News & Features

U.S. Winter Outlook: Warmer, drier South with ongoing La Nina

Drought to persist in Great Plains, parts of West and expand

Focus areas: Weather Topics: winter

Share:

October 20, 2022



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

States' Responses: Others need to do more



ARIZONA DEPARTMENT OF WATER RESOURCES

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CENTRAL ARIZONA PROJECT

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PRESS STATEMENT

Statement from ADWR Director Tom Buschatzke and CAP General Manager Ted Cooke in response to the U.S. Department of the Interior announcement of actions to protect the Colorado River system and 2023 Operating Conditions for Lake Powell and Lake Mead

Since Commissioner Touton's Senate testimony in June, Arizona has been working hard with the Basin States and Reclamation to identify actions that would take the necessary critical steps to conserve an additional 2-4 million acre-feet (MAF) to protect the Colorado River system.

The Arizona Department of Water Resources (ADWR) and the Central Arizona Project (CAP) came to the table prepared to take significant additional reductions beyond those required under the 2007 Guidelines and the Drought Contingency Plan with the expectation that others would need to do likewise, as no one state can do it alone.

Arizona and Nevada put forward an aggressive proposal that would achieve 2 MAF of reductions among the Lower Basin and Mexico in 2023 and beyond. That proposal was rejected.

Discussions among the Basin States and the United States have only led to a framework relying entirely on short-term, voluntary contributions for 2023 that fall far short of the water volumes needed to protect the system.

The Basin States have not yet produced a viable plan nor has the United States proposed a plan that achieves the protection volumes identified by the Commissioner.

Achieving volumes at this magnitude will take significant contributions by all water users in the Colorado River Basin.

Arizona already has demonstrated its commitment by leaving 800,000 acre-feet in Lake Mead in the current year alone. Since 2014, Arizona has left more than 2.5 MAF, equating to approximately 37 feet of increased elevation in Lake Mead.

It is unacceptable for Arizona to continue to carry a disproportionate burden of reductions for the benefit of others who have not contributed.

Arizona is committed to work toward a comprehensive plan that assures protection of the system through equitable contributions from all water users.



August 15, 2022

The Honorable Debra Haaland, Secretary of Interior
Department of the Interior
1849 C Street, NW
Washington, D.C. 20240

The Honorable Tanya Trujillo, Assistant Secretary for Water and Science
Department of the Interior
1849 C Street, NW
Washington, D.C. 20240

The Honorable Camille Calimlim Touton, Commissioner
Bureau of Reclamation



NEWS RELEASE

For Release: August 17, 2022

Contact: Alyx Richards, 801-531-1150, arichards@ucrcommission.com

Salt Lake City - On August 16th, Reclamation released its August 2022 24-Month Study, setting the operating conditions for the Colorado River System for 2023. The system continues to suffer from declining storage and near-record low river flows. Under the current operating rules, the Lower Basin States of Arizona and Nevada, as well as the Republic of Mexico, will suffer deeper shortages under Tier 2a conditions totaling approximately 721,000 acre-feet, while Lake Powell will operate under Lower Elevation Balancing conditions for 2023 with a projected release of seven million acre-feet.

The August 24-Month Study results are stark and point toward accelerating declines in the Colorado River System. In response to these projections and to requests from Reclamation for additional actions to protect critical Colorado River infrastructure, the Upper Division States of Colorado, New Mexico, Wyoming, and Utah are implementing their 5-Point Plan, including the development of a new water conservation agreement with Reclamation to initiate a System Conservation Pilot Program and beginning conversations in the next few weeks concerning the development of a potential 2023 drought operations plan under the Upper Basin Drought Contingency Plan Drought Response Operations Agreement.

The Upper Division States recognize that bringing the system into balance will require efforts from all seven Basin States and Mexico, even in light of the severe shortages that continue to occur in Upper Basin watersheds. However, actions in the Upper Basin may be largely ineffective unless new and significant reductions occur downstream of Lake Mead. To date, no consensus has been reached among the Lower Basin States on new actions to protect the Colorado River System. At this critical moment on the Colorado River, bold measures are necessary, including the assessment and inclusion of evaporation and losses in the Lower Basin in a manner similar to the accounting of evaporation and system losses every year in the Upper Basin. The UCRC supports the Department of the Interior, Bureau of Reclamation, and willing partners among the Lower Basin States and Tribes as they develop and implement new actions to balance water uses within the Colorado River's available annual supply.

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Visit the Upper Colorado River Commission website at <http://www.ucrccommission.com>.

ier Touton:

United States Senate and conveyed testified that between two and four ftical elevations in Lakes Mead and what has been a slow-moving train onking is near. We were both right

rs produced exactly nothing in terms The unreasonable expectations of s, only further divide common goals nt, the basin states and every water ach this point.

i will continue our efforts to ensure lear-eyed and pragmatic about the vada has spent the last two decades it confronts us now. The Southern 'cutting the third intake and low lake r in Lake Mead even if conditions Dam downstream to the country of has blazed the trail for urban water :onsumptive use from the river by

October
2022:
California
Proposes to
Save 400,000
AF /year

All water users in the Basin should take immediate voluntary actions to help protect low reservoir levels.

California Agencies collectively agreed to conserve up to 400,000 AF per year through 2026.

Metropolitan proposed to defer delivery of ICS saving up to an additional 150,000 AF annually

Reclamation to fund new conservation programs.

Outside California Consensus: 400,000 AF Not Enough

California has volunteered to conserve water, but some say it's not enough

By **Ron Dungan**

Published: Wednesday, October 26, 2022 - 4:25pm

California offers to cut 130 billion gallons a year to save Colorado River; expert says it's not enough



By Ella Nilsen, CNN

Updated 7:36 PM EDT, Wed October 5, 2022

ENERGY & ENVIRONMENT

California's opening bid won't solve the Colorado River crisis alone

Tony Davis @tonydavis987 · Oct 23

Colorado River water district head: California water cut far from what is needed from that state | Western Colorado | gjsentinel.com

Sammy Roth @Sammy_Roth · Oct 26

This is wild: Arizona Sen. Mark Kelly is demanding the federal government withhold funding for Salton Sea restoration until California commits to more aggressive conservation of Colorado River water:

River district head: California water cut far from what is needed from that state

By DENNIS WEBB Dennis.Webb@gjsentinel.com Oct 22, 2022 Updated Oct 22, 2022

USBR to Amend 2007 Guidelines with Supplement EIS

- No Action Alternate
- Law of River Alternative
- Pro-rata Sharing Alternative
- No Consensus-based Alternative Included



February 2023 Stories

Home >> Opinion >> Editorials

EDITORIAL: Tone-deaf, water-guzzling California needs federal intervention



The water level at Lake Mead in 2002. (Review-Journal file)

California plays 'hardball' with Colorado River states over cutbacks

BY SHARON UDASIN - 02/08/23 6:00 AM ET

SHARE TWEET

Cox says 'divide' exists but he hopes California will join Colorado River agreement

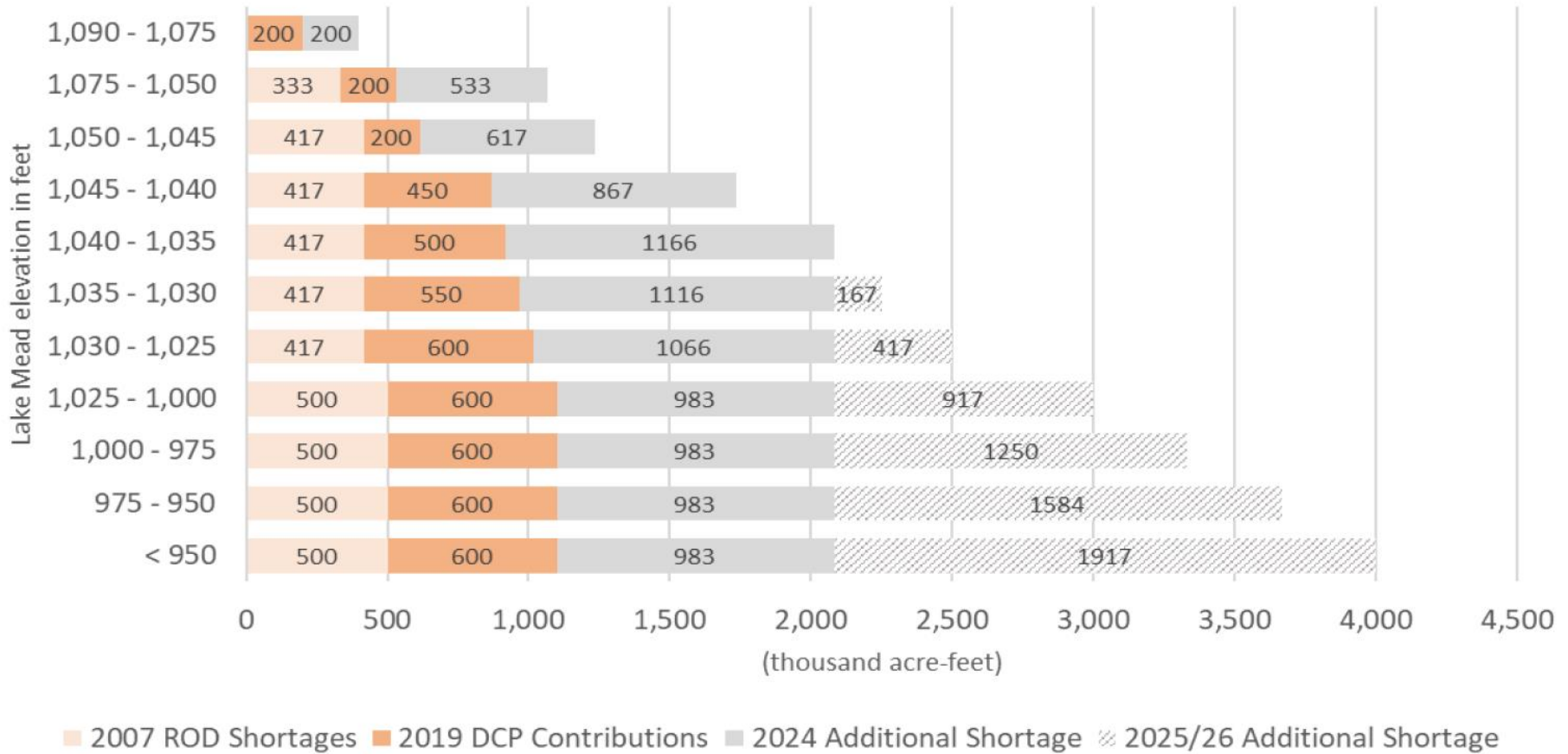
By Carter Williams, KSL.com | Posted - Feb. 17, 2023 at 6:18 a.m.



People walk by a formerly sunken boat standing upright into the air with its stern buried in the mud along the shoreline of Lake Mead on Jan. 27, near Boulder City, Nevada. Utah Gov. Spencer Cox said Thursday that he's a "little more optimistic" that all of the Colorado River states can come to an agreement on a plan to reduce water use. (John Locher, Associated Press)

RC Willey
PRESIDENTS' DAY
SALE!

Modeled Lower Division States' Shortages and DCP Contributions Action Alternatives 1 and 2



A graphic of the American flag, showing the stars and stripes, positioned on the left side of the page.

ACT OF 2022



INFLATION REDUCTION

UNITED STATES OF AMERICA

\$4 Billion for Western Drought Relief

“Meet JB Hamby, the Colorado River’s newest – and youngest – power player”

KUNC | By Alex Hager



UTAH'S MOST ACCURATE FORECAST

SINCE 1980

ONE FOR THE RECORD BOOKS

ALTA SNOWFALL
PHOTO: Chloe Jimenez

2022-2023

901"

1981-1982

748"

2010-2011

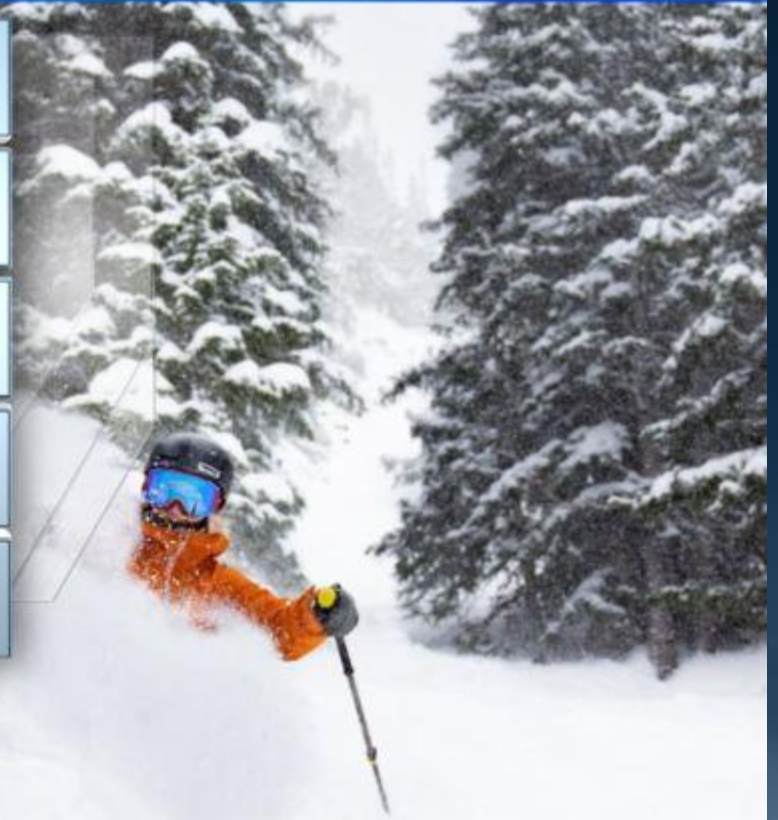
724"

1983-1984

708"

2007-2008

702"



May 22 Lower Basin Consensus Proposal

- Consider improved conditions
- Implement 3 maf of new conservation through 2026
- If needed, implement new cuts to protect Mead and Powell



The Colorado River Basin States Representatives of
Arizona, California, and Nevada

May 22, 2023

Sent via Electronic Mail

Camille Calimlim Touton, Commissioner
U.S. Bureau of Reclamation
1849 C Street NW
Washington, D.C. 20240

Dear Commissioner Touton:

The Colorado River Basin States Representatives of Arizona, California, and Nevada (Lower Division States) have reached an agreement to conserve at least an additional 3 million acre-feet (MAF) of Colorado River Water in the Lower Basin by the end of calendar year 2026, with at least 1.5 MAF of that total being conserved by the end of calendar year 2024 (Lower Basin Plan). We request the Lower Basin Plan be fully analyzed as an action alternative in the Bureau of Reclamation's (Reclamation) Near-Term Colorado River Operations Draft Supplemental Environmental Impact Statement (Draft SEIS), published last month.

Throughout this process, and as affirmed at the time the Draft SEIS was announced last month, the Lower Division States Representatives remained committed to working together and with Reclamation to develop agreement(s) that meet the purpose and need of the Draft SEIS to "modify guidelines for operation of Glen Canyon and Hoover Dams to address historic drought, historically low reservoirs, and low-runoff conditions in the Basin" (Draft SEIS, Section 1.3). We believe this proposed action alternative both meets the purpose and need of the Draft SEIS and, when analyzed, will be shown to perform equally or better than the action alternatives originally proposed by Reclamation. The Lower Basin Plan does not require any unilateral exercise of federal authority to achieve these levels of conservation.

Proposed California Reductions

Lower Basin States Proposed Alternative		May 5, 2023			
Recreated with expanded California Details					
Assumed Mead Elevation (ft)		1068	1046	1021	
	2023	2024	2025	2026	4-year total
Existing Mandatory Reductions					
07/DCP/323	721,000	613,000	721,000	1,375,000	3,430,000
Additional Mandatory Reduction					
California					
CVWD Groundwater Replenishment	35,000	35,000	35,000	-	105,000
CVWD Agricultural Conservation	-	10,000	10,000	-	20,000
Quechan Forbearance	13,000	13,000	13,000	13,000	52,000
PVID	78,000	120,000	120,000	83,000	401,000
Bard	-	6,000	-	-	6,000
IID	50,000	250,000	250,000	250,000	800,000
MWD Water In Mead	216,000	-	-	-	216,000
California Total	392,000	434,000	428,000	346,000	1,600,000

Clock Keeps Ticking on Interim Guidelines Expiration, Dec. 2025

Draft EIS Anticipated December 2024



Outstanding Issues for New Guidelines

- Who will be at “the table”?




Governor's Representatives

- Arizona Tom Buschatzke
- Nevada John Entsminger
- California JB Hamby
- Wyoming Brandon Gebhart
- Colorado Rebecca Mitchell
- New Mexico Estevan Lopez
- Utah Gene Shawcroft

Outstanding Issues for New Guidelines

- Minor tweaks or major changes to existing Guidelines?



THE SECRETARY OF THE INTERIOR
WASHINGTON

Record of Decision

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

December 2007

Recommending Official:

Robert Johnson December 13, 2007
ROBERT JOHNSON Date
Commissioner, Bureau of Reclamation

Approved:

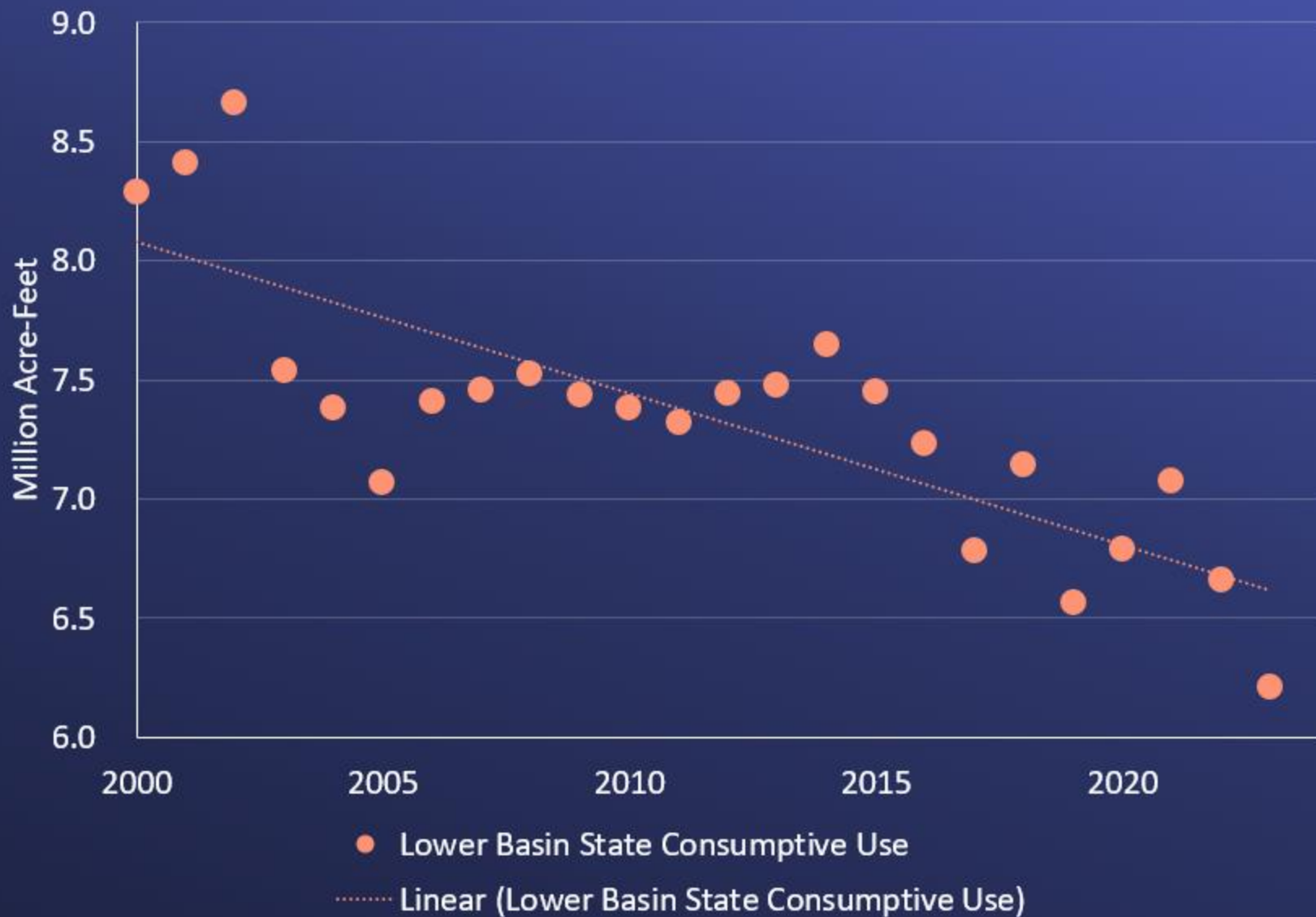
Dirk Kempthorne December 13, 2007
DIRK KEMPTHORNE Date
Secretary of the Interior

Interim Guidelines for the Operation of Lake Powell and Lake Mead

4. Whenever Lake Mead is below elevation 1,025 feet, the Secretary shall consult with the Basin States annually to consider whether Colorado River hydrologic conditions, together with the anticipated delivery of water to the Lower Division states and Mexico, is likely to cause the elevation of Lake Mead to fall below 1,000 feet. Upon such a consideration, the Secretary shall consult with the Basin States to discuss further measures that may be undertaken. The Secretary shall implement any additional measures consistent with applicable federal law.
5. During the Interim Period the Secretary shall consult with the Basin States regarding the administration of ICS.
6. During the Interim Period the Secretary shall consult with the Basin States regarding the creation of ICS through other extraordinary conservation measures pursuant to Section 3.A.1.h.
7. During the Interim Period the Secretary shall consult with the Basin States regarding the creation of System Efficiency ICS pursuant to Section 3.A.3.
8. The Secretary shall consult with the Basin States to evaluate actions at critical elevations that may avoid shortage determinations as reservoir elevations approach critical thresholds.

Colorado River Basin Total Storage

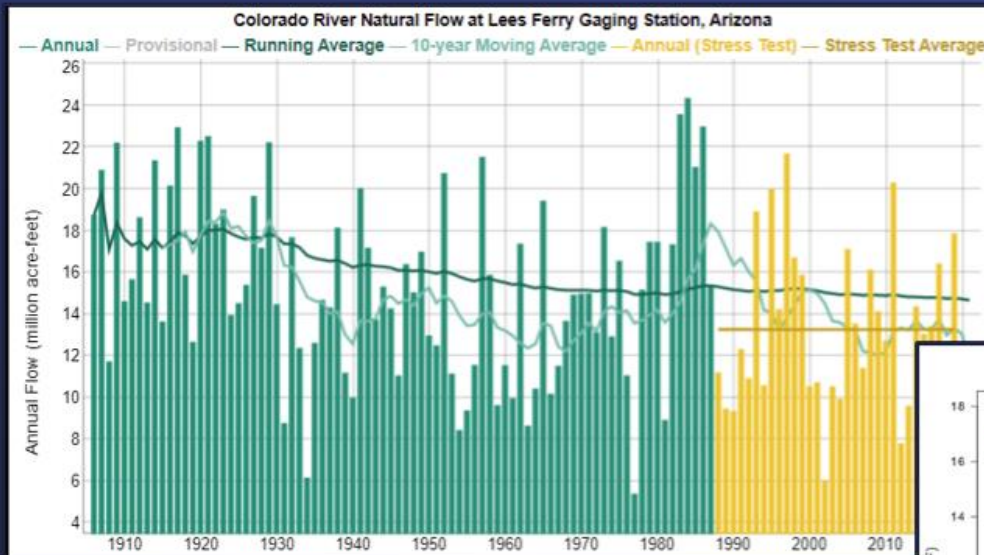




Outstanding Issues for New Guidelines

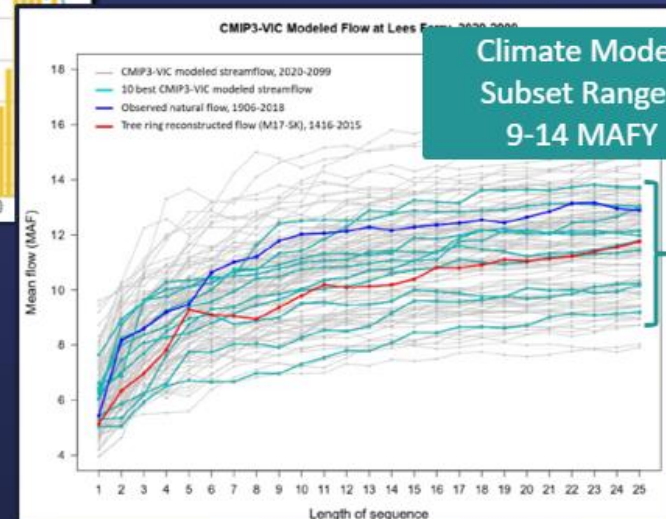
- How severe a future to plan for?

Historical and Future Colorado River Flows



Historical Natural Flow
at Lees Ferry

Global Climate Model Future Projections



Climate Model
Subset Range:
9-14 MAF

Outstanding Issues for New Guidelines

- How to Fully Involved both Upper and Lower Basins?

Upper and Lower Colorado River Basins Administer Water Differently



- USBR is NOT the Water Master
 - Limited control over water deliveries



- USBR is the Water Master
 - Significant control over water deliveries

Outstanding Issues for New Guidelines

- Use Priority System for cuts or Equitable Reductions?

SUMMARY OF ASSESSMENTS BY STATE / MX

State	afy
AZ	419,381
CA	773,008
NV	17,570
MX	333,040
TOTAL	1,543,000

SUMMARY OF WATER USER ASSESSMENTS


Reach	State	Major Water Users	afy
1	NV	LVVWD/SNWA - SNWP	15,514
3	AZ	Central Arizona Water Conservation District	190,474
3	CA	The Metropolitan Water District of Southern California	110,464
4	AZ	AZ Colorado River Indian Reservation	45,378
4	AZ	Wellton-Mohawk I.D.D.	51,654
4	CA	Coachella Valley Water District	70,074
4	CA	Imperial Irrigation District	509,508
4	CA	Palo Verde Irrigation District	71,335
5	AZ	Yuma County Water Users' Association	57,056
5	AZ	Yuma Mesa I.D.D.	34,342
5	MX	Mexico	333,040
<i>Subtotal</i>			1,488,839
Reach	State	Remaining Water Users	afy
All	AZ	Other Users in AZ	40,478
All	CA	Other Users in CA	11,627
All	NV	Other Users in NV	2,056
<i>Subtotal</i>			54,161
TOTAL			1,543,000

¹ Major users considered to have losses greater than 10,000 afy

Priorities for Urban Southern California

(Not adopted by any agency)

- Protecting California's Senior Priority
- Protecting MWD/SDCWA/CA Investments in Agricultural Programs/Partnerships
- Providing "full" CRA in dry years while continuing to develop local supplies
- Ensuring Human Health & Safety Deliveries during Extreme Droughts
- Interstate Augmentation Opportunities
- Flexibility in Annual Operations



The challenge of the unknown
future is so much more exciting than
the stories of the accomplished past.

Simon Sinek

quote fancy

