



March 2, 2023

## **NOTICE OF REGULAR MEETING OF THE COLORADO RIVER BOARD OF CALIFORNIA**

**NOTICE IS HEREBY GIVEN** pursuant to the call of the Chairman, J.B. Hamby, by the undersigned Executive Director of the Colorado River Board of California that a regular meeting of the members of the board is to be held as follows:

Date:	Wednesday, March 15, 2023
Time:	10:00 AM
Place:	San Diego County Water Authority 4677 Overland Avenue San Diego, CA 92123

The Colorado River Board of California welcomes any comments from members of the public pertaining to items included on this agenda and related topics. Members of the public may provide comments in the following ways: (1) Oral comments can be provided at the beginning of each board meeting; and (2) Public comments may be submitted by electronic mail, addressed to the board's Chairman, J.B. Hamby, at [crb@crb.ca.gov](mailto:crb@crb.ca.gov) and will be accepted up until 10:00 a.m. on the day of the meeting. Please note, written submissions will be read aloud at the public comment period to the extent they fit within the five-minute time limit.

If accommodations for individuals with disabilities are required, such persons should provide a request at least 24 hours in advance of the meeting by electronic mail to board staff at [crb@crb.ca.gov](mailto:crb@crb.ca.gov).

Requests for additional information may be directed to: Mr. Christopher S. Harris, Executive Director, Colorado River Board of California, 770 Fairmont Avenue, Suite 100, Glendale, CA 91203-1068. A copy of this Notice and Agenda may be found on the Colorado River Board's web page at [www.crb.ca.gov](http://www.crb.ca.gov).

A copy of the meeting agenda, showing the matters to be considered and transacted, is attached.



## **REGULAR MEETING AGENDA**

### **Wednesday, March 15, 2023 — 10:00 AM**

At the discretion of the board, all items appearing on this agenda, whether or not expressly listed for action, may be deliberated upon and may be subject to action by the board. Items may not necessarily be taken up in the order shown.

#### **CALL TO ORDER**

#### **WELCOME TO SAN DIEGO COUNTY WATER AUTHORITY**

#### **SPECIAL GUEST PRESENTATION**

1. Remarks from Congressman Scott Peters

#### **PUBLIC COMMENTS** (Limited to 5 minutes.)

#### **ADMINISTRATION**

1. Consideration and approval of meeting minutes of the January 11<sup>th</sup>, 2023 board meeting (**Action**)

#### **SPECIAL PRESENTATION**

2. San Diego County Water Authority: A Diversified Approach to Resiliency

#### **REPORTS**

3. Local and State Water Supply and Operations Reports
4. Colorado River Basin Water Supply and Operations Reports
5. Colorado River Basin Programs Staff Reports
6. Member Agency Reports
7. Executive Director's Report
8. Chairman's Report

An Executive Session may be held by the Board pursuant to provisions of Article 9 (commencing with Section 11120) of Chapter 1 of Part 1 of Division 3 of Title 2 of the Government Code and Sections 12516 and 12519 of the Water Code to discuss matters concerning interstate claims to the use of Colorado River System waters in judicial proceedings, administrative proceedings, and/or negotiations with representatives from the other Basin states or federal government.

**EXECUTIVE SESSION<sup>1</sup>**

**OTHER BUSINESS**

**FUTURE AGENDA ITEMS & ANNOUNCEMENTS**

**ADJOURNMENT**

**Next Scheduled Board Meeting**

Date:	Wednesday, April 12, 2023
Time:	10:00 AM
Place:	Long Beach
	Location TBD



Minutes of Meeting  
COLORADO RIVER BOARD OF CALIFORNIA  
Wednesday, January 11, 2023

A meeting of the Colorado River Board of California (Board) was held on Wednesday, November 9, 2022, at the Sheraton Ontario Airport Hotel, 429 North Vineyard Avenue, Ontario, California 91764.

Board Members and Alternates Present:

David De Jesus (MWD Alternate)  
Dana B. Fisher, Jr. (PVID)  
John B. Hamby (IID)  
Jeanine Jones (DWR Designee)  
Jim Madaffer (SDCWA)

Peter Nelson, Chairman (CVWD)  
Glen D. Peterson (MWD)  
David R. Pettijohn, Vice Chairman (LADWP)  
Jack Seiler (PVID Alternate)  
David Vigil (DFW Alternate)

Board Members and Alternates Absent:

Gary Croucher (SDCWA Alternate)  
Castulo Estrada (CVWD Alternate)  
James Hanks (IID Alternate)

Christopher Hayes (DFW Designee)  
Delon Kwan (LADWP Alternate)

Others Present:

Steve Abbott  
Robert Cheng  
Gloria Cordero  
Dennis Davis  
Gina Dockstader  
JR Echard  
Chris Harris  
Michael Hughes  
Ned Hyduke  
Rich Juricich  
Eric Katz  
Kit San Lai  
Laura Lamdin

Tom Levy  
Aaron Mead  
Jessica Neuwerth  
Shana Rapoport  
Angela Rashid  
David Rheinheimer  
Brad Robinson  
Tom Ryan  
Alexi Schnell  
Tina Shields  
Petya Vasileva  
Margaret Vick  
Jerry Zimmerman

## **CALL TO ORDER**

Chairman Nelson announced the presence of a quorum and called the meeting to order at 10:02 a.m.

## **OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD**

Chairman Nelson invited members of the audience to address the Board on items on the agenda or matters related to the Board.

Ms. Tina Shields, representing the Imperial Irrigation District (IID) took the opportunity to introduce IID's new Board Member Ms. Gina Dockstader, noting that she will also serve as an alternate on the Colorado River Board, once she is approved by the Governor of California.

## **ADMINISTRATION**

Chairman Nelson moved on to the next item on the agenda which was the Election of Board Officers (Chairman and Vice Chairman) of the Colorado River Board of California (Board). Chairman Nelson stated that he was longer able to serve as Chairman and expressed appreciation for the support he has received over the last four years. Executive Director Harris expressed gratitude for Chairman Nelson's great service to the Board during the challenging times on the Colorado River during the Chairman's tenure.

Chairman Nelson asked for nominations for Chairman for the Board. Mr. Fisher nominated Mr. J.B Hamby, representing the Imperial Irrigation District, as Chairman of the Board. Vice Chairman Pettijohn nominated Mr. Jim Madaffer, representing the San Diego County Water Authority. Mr. Hamby and Mr. Madaffer both provided comments about their experience with their respective agencies and the Colorado River Basin before the vote commenced. The roll call vote for Mr. Hamby was as follows: Mr. Nelson-Yes, Mr. Hamby-Yes, Mr. Peterson-Yes, Mr. Fisher-Yes, Ms. Jones and Mr. Vigil abstained. The roll call vote for Mr. Madaffer was as follows: Mr. Pettijohn-Yes, Mr. Madaffer-Yes, Ms. Jones and Mr. Vigil abstained. Neither nominee received a majority of the vote from the Board members.

Chairman Nelson called for a second vote. The roll call vote for Mr. Hamby was as follows: Mr. Nelson-Yes, Mr. Hamby-Yes, Mr. Peterson-Yes, Mr. Fisher-Yes, Ms. Jones and Mr. Vigil abstained. The roll call vote for Mr. Madaffer was as follows: Mr. Pettijohn-Yes, Mr. Madaffer-Yes, Ms. Jones and Mr. Vigil abstained. For the second vote, neither nominee received a majority of the vote from the Board members.

Board member Hamby suggested holding the vote for Vice Chairman first. Chairman Nelson asked for recess and the Board took a recess at 10:17 a.m.

The Board resumed the regular session at 10:33 a.m. Chairman Nelson asked for nominations for Vice Chairman. Mr. Hamby nominated Mr. Madaffer. No other nominations were submitted. The roll call vote was as follows: Mr. Nelson-Yes, Mr. Hamby-Yes, Mr. Pettijohn-Yes, Mr. Peterson-Yes, Mr. Fisher-Yes, Mr. Madaffer-Yes, Ms. Jones and Mr. Vigil abstained. Mr. Madaffer received a majority vote and was elected Vice Chairman for the Colorado River Board of California.

Mr. Madaffer nominated Mr. Hamby as Chairman. No other nominations were submitted. The roll call vote was as follows: Mr. Nelson-Yes, Mr. Hamby-Yes, Mr. Pettijohn-Yes, Mr. Peterson-Yes, Mr. Fisher-Yes, Mr. Madaffer-Yes, Ms. Jones and Mr. Vigil abstained. Mr. Hamby received a majority vote and was elected Chairman of the Colorado River Board of California.

Chairman Nelson congratulated the newly elected Chair and Vice Chairman. Various Board members thanked out-going Chairman Nelson and Vice Chairman Pettijohn for their service to the Board.

## **COLORADO RIVER BASIN WATER REPORTS**

### **Colorado River Basin Report**

Mr. Juricich reported that as of January 9<sup>th</sup>, the water level at Lake Powell was 3,524.62 feet with 5.52 million-acre feet (MAF) of storage, or 24% of capacity. The water level at Lake Mead was 1,045.11 feet with 7.33 MAF of storage, or 28% of capacity. The total system storage was 19.07 MAF, or 33% of capacity, which is 2.94 MAF less than system storage at this time last year.

Mr. Juricich reported that as of January 5<sup>th</sup>, for Water Year-2023 (WY-2023), the observed December inflow to Lake Powell was 0.28 MAF, or 88% of normal. The January inflow forecast to Lake Powell is 0.28 MAF, or 83% of normal. Mr. Juricich reported that water supply conditions in the Colorado River Basin have been improving and the forecasted unregulated inflow into Lake Powell is 9.50 MAF, or 99% of normal. He reported that the forecasted April to July inflow into Lake Powell is 6.70 MAF, or 105% of normal. He added that similar conditions were seen this time last year and storm activity ceased for the first few months of 2022.

Mr. Juricich reported on snow water equivalent (SWE) conditions throughout the Colorado River Basin, noting that SWE conditions in Utah were above 150% of median. He reported that throughout most of the Basin, WY-2023 precipitation conditions range from normal to above normal.

Mr. Juricich reported on the December 24-Month Study. He stated that the most probable release for Lake Powell is 7.0 MAF in WY-2023 and 8.01 MAF in WY-2024, noting that the projected releases do not help improve Lake Mead's elevation. Mr. Juricich reported that Lake Mead's elevation is projected to drop to 1,025 feet by the end of this calendar year.

Mr. Juricich reported that through the end of December the Brock and Senator Wash regulating reservoirs captured 115,281 AF and 79,490 AF, respectively. He also reported that the excess deliveries to Mexico were 8,983 AF, compared to 28,855 AF this time last year. Finally, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 142,127 AF.

### **State and Local Report**

Ms. Jones, representing the California Department of Water Resources (DWR), reported that the WY-2023 precipitation conditions are above average in the central region of California, south of Oroville and Shasta reservoirs. She added that precipitation conditions along the State Water Project and Federal Central Valley Project have not fared as well. She reported that there have been flooding issues along the San Lorenzo River by Santa Cruz due to recent storms.

Ms. Jones reported that the current Statewide snowpack is 199% of normal and 85% of the April 1<sup>st</sup> snowpack, which is considered the maximum accumulation of snowpack. She added that she has been talking to media outlets explaining that the drought is not over because the reservoir storage has not recovered yet. She stated that statewide reservoir storage has improved over the past few weeks due to storm activity, but the storage in the larger reservoirs, Shasta and Oroville, has not recovered yet because they were not in the path of the storms. She noted that Folsom Lake reservoir has been making flood releases, noting that the watershed is flashy in nature, and it has also been in the path of the most recent storms. She noted that the Don Pedro and New Melones reservoirs were heavily taxed last year to meet Bay Delta flows because Oroville and Shasta's elevations have been low.

Chairman Nelson asked whether there was enough flow from the San Joaquin River to allow the pump into San Luis reservoir to operate at maximum level and whether it will affect pumping into the State Water Project. Ms. Jones responded that reservoir storage for the state



and federal projects does not temporally match the hydrology as closely as it does for some of the other reservoirs, adding that those reservoirs have to provide basic flows for the Bay Delta and instream flows, but have not had to due to the above average precipitation. Ms. Jones explained that another constraint on the operation of the pumps in the Delta is the location of the smelt. She stated that due to current conditions, more water will be able to be moved through the Delta.

Ms. Jones reported that the Sacramento River is a wetter river than the Colorado River in terms of average annual flows, adding that during wet years, a lot of the flow of the Sacramento River is diverted into the dual bypass system to take out of the channel and diminish flood risks. Ms. Jones displayed a graphic showing the observed and forecasted flow along the Sacramento weir, which is part of the bypass system. She explained that while other weirs in the system are overflowing, the Sacramento weir is not overflowing and has not overflowed since 2017.

Responding to a question about the status of the Yolo Bypass, Ms. Jones explained that some refer to the entire system as the Yolo Bypass and others call the Sacramento Bypass the upper bypass system on the Sacramento River, while the Yolo Bypass is considered the lower bypass. She stated that there is water in the Yolo Bypass which has been contributed from the weirs that are higher up in the system. She added that there are some bypasses on the San Joaquin River, which is in a high flood risk situation due to its limited channel capacity. She noted that there are very minor opportunities to divert water out of the system, but nothing on the scale and magnitude of the Sacramento River.

Ms. Jones presented results of an experimental forecast from Scripps that DWR funded to provide the probability of atmospheric rivers (ARs). She explained that the forecast is out to 16 days, but most of the scale is 7 to 10 days. She stated that the forecast shows that California is expected to experience more atmospheric rivers in the next week or so, adding that after this timeframe the forecast is limited because weather models do not operate at that scale. She stated that the forecast is run several times a day and shows the probability of integrated water vapor transport, which is how much water is moving through the atmosphere. She noted that the results show 250 kg/ms of water vapor, which is the minimum threshold for an atmospheric river, adding that the model can also forecast 500 kg/ms and 750 kg/ms. She stated that a 500 kg/ms AR would be very, very wet. She explained that the duration of the AR is an important factor when considering overall AR volume. Board member Fisher asked whether the forecasted AR would produce enough water to assist Shasta and Oroville reservoirs. Ms. Jones stated that the AR would assist the reservoirs but emphasized that both reservoirs have a lot of space to fill. Ms. Jones reported that there are several smaller reservoirs that have been spilling to create

flood control space, noting that Folsom Lake has been conducting flood control releases for more than a week and a half.

Board member Madaffer inquired about amount of precipitation that would be needed to slow down drought conditions in the Colorado River Basin. Ms. Jones stated that drought is defined as impact based. As an example, she explained that if a small system relies mostly on runoff, rather than storage, then the system is particularly susceptible to wet or dry winter conditions. She stated that the Colorado River Basin is similar to groundwater basins in California in the sense that it has massive storage and the storage has been greatly depleted during the more than 20 years of drought in the Colorado River Basin. She stated that the Basin is on a good path to having a good water year, but the good precipitation conditions will not recover the long-term depletion of storage. She stated that the overall, conditions have been so dry that storage continues to decline and climate change and the warming atmosphere have also decreased runoff efficiency. Ms. Jones stated that last year the Basin had near normal precipitation but had below average runoff.

Ms. Jones explained further that under the current Interim Guidelines, triggers for shortages that are tied to reservoir elevations, so to come out of a shortage condition in the Basin would require enough runoff above those trigger elevations, which will be difficult to attain over the next few years. She stated the Basin may need about five consistent years or more of very wet conditions to improve reservoir storage. Executive Director Harris added that reduction of demands would also be necessary to help improve Lake Powell's reservoir storage and reestablish balancing between Lake Powell and Lake Mead to start rebuilding storage in Lake Mead. Board member Madaffer stated that this message needs to be pushed to the media, adding that the public sees spills from Folsom Reservoir and believes that drought is over. He stated that it is important for all of our member agencies to understand that although there has been a lot of precipitation, the Colorado River Basin is still in a bad situation. Ms. Jones reported that she reminds the media of these facts, but many have forgotten what a wet winter looks like. She added that in California, there would need to be quite a few wet years to come close to recovering the 10 years of storage that was lost.

Board member Fisher remarked that Ms. Jones' discussion highlights the relative difference of storage along the Colorado River and State Water Project, adding that several Lake Shasta's could fit into Lake Mead. He stated it has taken a long time for the Colorado River Basin to deplete its reservoirs and it will take a long time to refill them.

Ms. Jones stated that the California drought that occurred in 2017 was a wet year throughout the state except for the central coast. She stated that Santa Barbara was forced to

do emergency pumping at Lake Cachuma until 2019 because the area was not in the path of many of the storms that occurred in 2017. Similarly, Ms. Jones stated that in some years, not all the regions in the Upper Colorado River Basin benefit from wet conditions, such as the San Juan Basin.

Chairman Nelson remarked that if there continue to be average releases of 7.5 MAF releases from Lake Powell over ten years, and demands remain at 9.0 MAF in the Lower Basin, the system will be in deficit.

Board member Peterson, representing The Metropolitan Water District of Southern California (MWD) reported that as of January 1<sup>st</sup>, total reservoir capacity is 66%. He stated that the Colorado River Aqueduct (CRA) is on a 5-pump flow and that the CRA is closing down in February for about twenty days for repairs. He stated that MWD has had success closing down the CRA in February to make repairs over the last ten years. Mr. Peterson reported that water consumption in MWD's service area is declining due to storm activity over the last two months.

Vice Chairman Pettijohn, representing the Los Angeles Department of Water and Power (LADWP), reported that current precipitation conditions are above the normal April 1<sup>st</sup> level and tracking closely with the wettest year in history, which was 2016-2017. He added that it is a good start to the water year but cautioned that above normal snowpack may not translate into normal runoff conditions. Mr. Harris inquired about LADWP's contingency plan for storing water if the water year continues to track as the wettest year in history. Mr. Pettijohn responded that currently LADWP has options that it can explore but is not planning on doing anything abnormal.

### **Colorado River Basin States Activities**

#### *Supplemental Environmental Impact Statement for the December 2007 Record of Decision*

Mr. Harris provided an update to the Board on the U.S. Bureau of Reclamation public process for the Notice of Intent (NOI) to prepare a Supplemental Environmental Impact Statement (SEIS) for the December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead. The public comment period closed on December 20, 202. The Board and several of the Board member agencies provided comments to Reclamation. Mr. Harris reported that following discussions at the Colorado River Water Users Association in December held in Las Vegas, Nevada, the Seven Basin States Principals, and technical staff continue to meet in an attempt to develop a Seven States consensus-based framework alternative to provide to Reclamation for inclusion in the SEIS. The States continue to meet with the expectation of developing a consensus alternative by the end of January.

Mr. Fisher asked if Reclamation would use the SEIS process to go beyond 2026. Mr. Harris responded that Reclamation has not indicated it would but highlighted that if something were adopted and implemented and it worked well, that maybe it slips into the post-2026 landscape.

Mr. Fisher responded that the states need to come to an agreement on a consensus proposal. Mr. Harris responded that the states do need to come to an agreement by the end of January. A draft EIS is due out by early April because Reclamation wants to have the final EIS and a record of decision by mid-summer.

Mr. Fisher stated the SEIS will have three alternatives. A No-Action alternative, which already has a lot of action like the DCP; A State's Consensus; and a Reclamation proposal. The No Action and the Reclamation proposals will follow the Law of the River, while the other states want to toss all that out. California may be better off with the federal alternative.

Mr. Harris didn't disagree with the assessment. Mr. Harris indicated that the tribes and academics may come in with alternatives.

Mr. Fisher stated that at the end of the day the other states want California to give up its apportionment, but that the other states need California to agree to a voluntary reduction. Otherwise, the states are bound by the Law of the River. Mr. Harris agreed.

Mr. Pettijohn stated that if California sticks strictly to the Law of the River, the urban users in Southern California would be in a very bad situation.

Mr. Fisher responded that California could work with its users to adjust to reduced deliveries.

Mr. Hamby stated that California urban uses would only be impacted after other states had been drastically reduced.

Mr. Harris stated that the priority system works to the benefit where California agencies can effectively backstop each other. Mr. Harris stated that other states are reacting negatively to California, but California is the only state that has put water on the table. Arizona has the ability to develop a Quantification Settlement Agreement the way California did.

Mr. Madaffer stated that the QSA is a model for the entire basin. He added that there may be value in creating a Colorado River Basin Commission that could help coordinate and oversee actions on a basinwide scale. He stated that it would be helpful for the Board staff to explain the role of such a commission and how it could help the Basin States.

Mr. Harris agreed that the landscape level issues should be discussed over the next couple of years as the Basin starts on the next framework.

## **GENERAL ANNOUNCEMENTS AND UPDATES**

### **Washington, DC Updates**

#### *Water Resources Development Act (WRDA)*

Mr. Harris reported that WRDA was signed into law by President Biden on December 23, 2022.

## **ADJOURNMENT**

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 11:31 a.m.



3/6/2023

## LOWER COLORADO WATER SUPPLY REPORT

River Operations  
Bureau of Reclamation

Questions: [BCOOWaterops@usbr.gov](mailto:BCOOWaterops@usbr.gov)

(702)293-8373

<http://www.usbr.gov/lc/region/g4000/weekly.pdf>

	PERCENT	Content 1000 ac-ft (kaf)	Elev. (Feet above mean sea level)	7-Day Release (CFS)
CURRENT STORAGE	FULL			
LAKE POWELL	23%	5,307	3,520.81	8,200
* LAKE MEAD	29%	7,459	1,046.87	10,600
LAKE MOHAVE	93%	1,685	642.51	11,100
LAKE HAVASU	95%	587	448.37	8,100
TOTAL SYSTEM CONTENTS **	32%	18,894		
As of 3/5/2023				
SYSTEM CONTENT LAST YEAR	36%	21,391		
*Percent based on capacity of 26,120 kaf or elevation 1,219.6 feet.				
**Total System Contents includes Upper & Lower Colorado River Reservoirs, less Lake Mead exclusive flood control space.				
Salt/Verde System	87%	1,991		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	16%	158	1,130.09	25
Forecasted Water Use for Calendar Year 2023 (as of 03/06/2023) (values in kaf)				
NEVADA			227	
SOUTHERN NEVADA WATER SYSTEM				215
OTHERS				12
CALIFORNIA			4,428	
METROPOLITAN WATER DISTRICT OF CALIFORNIA				998
IRRIGATION DISTRICTS				3,412
OTHERS				18
ARIZONA			2,366	
CENTRAL ARIZONA PROJECT				1,143
OTHERS				1,223
TOTAL LOWER BASIN USE				7,021
DELIVERY TO MEXICO - 2023 (Mexico Scheduled Delivery + Preliminary Yearly Excess <sup>1</sup> )				1,419
OTHER SIGNIFICANT INFORMATION				
UNREGULATED INFLOW INTO LAKE POWELL - MARCH FINAL FORECAST DATED 3/3/2023				
		MILLION ACRE-FEET	% of Normal	
FORECASTED WATER YEAR 2023		10.868	113%	
FORECASTED APRIL-JULY 2023		8.000	125%	
FEBRUARY OBSERVED INFLOW		0.270	74%	
MARCH INFLOW FORECAST		0.450	75%	
		Upper Colorado Basin	Salt/Verde Basin	
WATER YEAR 2023 PRECIP TO DATE		121% (17.5")	151% (20.9")	
CURRENT BASIN SNOWPACK		132% (17.3")	284% (12.4")	

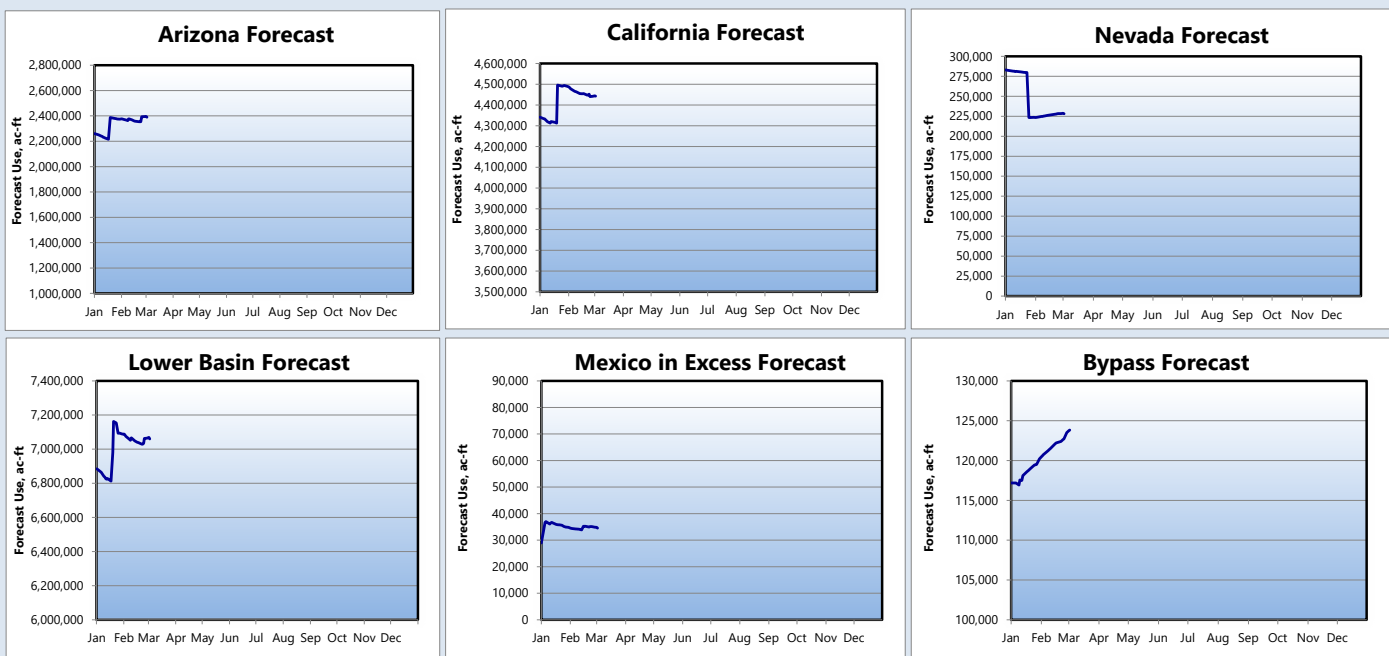
<sup>1</sup>Delivery to Mexico forecasted yearly excess calculated using year-to-date observed and projected excess.


**BUREAU OF RECLAMATION**  
**LOWER COLORADO BASIN REGION**  
**CY 2023**

ARIZONA, CALIFORNIA, NEVADA, MEXICO  
 FORECAST OF END OF YEAR CONSUMPTIVE USE  
 FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS <sup>1</sup>  
 (ACRE-FEET)

<b>WATER USE SUMMARY</b>	<b>Use</b>	<b>Forecast</b>	<b>Approved</b>	<b>Excess to</b>
	<b>To Date</b>	<b>Use</b>	<b>Use<sup>2</sup></b>	<b>Approval</b>
	<b>CY 2023</b>	<b>CY 2023</b>	<b>CY 2023</b>	<b>CY 2023</b>
Arizona	186,893	2,360,778	2,264,255	<b>96,523</b>
California	412,808	4,429,855	4,341,455	<b>88,400</b>
Nevada	17,329	227,062	227,062	0
<b>States Total<sup>3</sup></b>	<b>617,030</b>	<b>7,017,695</b>	<b>6,832,772</b>	<b>184,923</b>
Total Deliveries to Mexico <sup>4</sup>	280,669	1,384,792	1,384,792	
Creation of Mexico's Recoverable Water Savings <sup>5</sup>	0	34,000	34,000	
Creation of Mexico's Water Reserve <sup>6</sup>	11,208	11,208	11,208	
Total to Mexico in Satisfaction of Treaty Requirements <sup>7</sup>	291,877	1,430,000	1,430,000	
To Mexico in Excess of Treaty <sup>8</sup>	9,787	33,140	28,963	
Water Bypassed Pursuant to IBWC Minute 242 <sup>9</sup>	28,397	124,162	117,192	
<b>Total Lower Basin &amp; Mexico <sup>10</sup></b>	<b>935,883</b>	<b>8,559,789</b>	<b>8,363,719</b>	

<sup>1</sup> Incorporates 80 daily reporting stations which may be revised after provisional data reports are distributed by the USGS. Use to date is estimated for users reporting monthly and annually.  
<sup>2</sup> These values reflect adjusted apportionments. See Adjusted Apportionment calculation on each state page.  
<sup>3</sup> Includes unmeasured returns based on estimated consumptive use/diversion ratios by user from studies provided by Arizona Department of Water Resources, Colorado River Board of California, and Reclamation.  
<sup>4</sup> Includes scheduled deliveries to Mexico at the Northerly International Boundary, Southerly International Boundary, Limitrophe, and Diversion Channel Discharge; and diversions at Parker Dam for Emergency Delivery to Tijuana. Volume shown does not include Creation of Mexico's Water Reserve or Creation of Mexico's Recoverable Water Savings.  
<sup>5</sup> Water deferred by Mexico pursuant to Section IV of IBWC Minute 323 and the *Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin* dated July 11, 2019. (Mexico's required Binational Water Scarcity Contingency Plan Contribution).  
<sup>6</sup> Water deferred by Mexico pursuant to Section V of IBWC Minute 323.  
<sup>7</sup> In accordance with Section XI.G.2.D.1.b of the 2007 Interim Guidelines, a Tier 2 Shortage Condition will govern the operation of Lake Mead and the lower Colorado River in 2023. In accordance with Section III.A of Minute 323, Mexico's scheduled deliveries incorporate the required reduction of 70,000 AF from its 1.5 million AF Colorado River water allotment. "Total to Mexico in Satisfaction of Treaty Requirements" adds in creation of Mexico's Recoverable Water Savings and Mexico's Water Reserve.  
<sup>8</sup> "To Mexico in Excess of Treaty" forecast is based on the 5-year average for the period 2017-2021.  
<sup>9</sup> "Water Bypassed Pursuant to IBWC Minute 242" forecast is based on the average for the period 1990-2021.  
<sup>10</sup> Includes States Total, Total Deliveries to Mexico, To Mexico in Excess of Treaty, and Water Bypassed Pursuant IBWC Minute 242.



Graph notes: January 1 forecast use is scheduled use in accordance with the Annual Operating Plan's state entitlements, available unused entitlements, and over-run paybacks. A downward sloping line indicates use at a lower rate than scheduled, upward sloping is above schedule, and a flat line indicates a use rate equal to schedule. Lower priority users such as CAP, MWD, and Robt.B.Griffith may adjust use rates to meet state entitlements as higher priority use deviates from schedule. **Abrupt changes in the forecast use line may be due to a schedule change or monthly updating of provisional realtime diversions.**





**LOWER COLORADO BASIN REGION  
CY 2023**

**ARIZONA WATER USERS**

Forecast end of year diversion/consumptive use

Forecast based on use to date and approved annual water orders

[Arizona Schedules and Approvals](#)

**NOTE:**  
 • Diversions and uses that are pending approval are noted in *red italics*.  
 • Water users with a consumptive use entitlement - **Excess to Estimated Use** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a diversion entitlement.  
 • Water user with a diversion entitlement - **Excess to Approved Diversion** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a consumptive use entitlement.

WATER USER	Use	Forecast	Estimated	Excess to	Diversion	Forecast	Approved	Excess to
	To Date	Use	Use	Estimated	To Date	Diversion	Diversion	Approved
	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023
TV Marble Canyon, AZ LLC	1	10	10	---	2	15	15	0
Lake Mead NRA, AZ - Diversions from Lake Mead	4	68	68	---	4	68	68	0
Lake Mead NRA, AZ - Diversions from Lake Mohave	36	218	218	---	36	218	218	0
McAlister Family Trust	1	7	7	---	1	10	10	0
Bureau of Reclamation - Davis Dam Project	0	2	2	---	1	10	10	0
Bullhead City	1,139	8,699	8,699	---	1,831	13,730	13,730	0
Mohave Water Conservation District	115	749	749	---	170	1,115	1,115	0
Mohave Valley I.D.D. <sup>1</sup>	3,381	21,209	21,209	---	6,259	39,276	39,276	0
Fort Mojave Indian Reservation, AZ	2,947	40,973	44,280	---	5,457	75,876	82,000	-6,124
Golden Shores Water Conservation District	42	287	287	---	63	432	432	0
Havasu National Wildlife Refuge	34	3,258	3,564	---	273	38,123	41,835	-3,712
EPCOR Water Arizona, Inc. - CSA No. 1	81	527	527	---	126	810	810	0
Crystal Beach Water Conservation District	11	73	73	---	16	112	112	0
Lake Havasu City	1,254	9,052	9,052	---	2,023	14,600	14,600	0
Arizona State Parks (Windsor Beach)	2	11	11	---	2	17	17	0
Central Arizona Water Conservation District <sup>2</sup>	93,631	1,141,443		---	93,631	1,141,443		--
Hillcrest Water Company	3	21	21	---	5	32	32	0
Springs Del Sol Domestic Water Improvement District	0	2	2	---	0	3	3	0
Frontier Communications West Coast	0	1	1	---	0	1	1	0
EPCOR Water Arizona, Inc. - CSA No. 2 (formerly Brooke Water, LLC)	49	327	327	---	72	489	489	0
Town of Parker	40	418	418	---	117	912	912	0
Colorado River Indian Reservation, AZ	27,032	364,690	360,641	---	51,493	641,969	662,402	-20,433
GM Gabrych Family	428	2,925	2,925	---	659	4,500	4,500	0
Ehrenberg Improvement District	38	260	260	---	53	365	365	0
B&F Investment	1	8	8	---	2	11	11	0
North Baja Pipeline	29	200	200	---	45	308	308	0
Arizona State Land Department - Domestic	6	40	40	---	11	61	61	0
Cibola Valley I.D.D.	232	5,322	5,322	---	326	7,443	7,443	0
Red River Land Co.	0	214	214	---	0	300	300	0
Hopi Tribe	77	3,061	3,061	---	106	4,278	4,278	0
GSC Farms, LLC	0	2,083	2,083	---	0	2,913	2,913	0
Arizona Game & Fish	0	2,031	2,031	---	0	2,838	2,838	0
Cibola Island	103	705	705	---	144	986	986	0
Cibola National Wildlife Refuge	509	14,264	14,264	0	820	23,005	23,005	0
Western Water, LLC	6	379	379	---	9	530	530	0
Cibola Sportsmans Club	6	154	154	---	9	216	216	0
Bishop Family Trust	13	300	300	---	17	420	420	0
Cathcarts	4	90	90	---	6	126	126	0
Imperial National Wildlife Refuge	664	3,799	3,799	0	1,071	6,128	6,128	0
BLM - Leased by L. Pratt	8	58	58	---	13	89	89	0
BLM Permittees (Parker Dam to Imperial Dam)	186	1,271	1,271	0	287	1,956	1,956	--
Fisher's Landing Water and Sewer, LLC	1	7	7	---	2	11	11	0
Shepard Water Company	3	18	18	---	4	28	28	0
U.S. Army Yuma Proving Grounds	55	486	486	---	55	486	486	0
JRJ Partners, LLC	98	666	666	---	150	1,025	1,025	0
Cha Cha, LLC	126	1,365	1,365	---	192	2,100	2,100	0
Beattie Farms Southwest	36	722	722	---	55	1,110	1,110	0
Gila Monster Farms	377	4,444	4,833	---	682	7,837	8,500	-663
Wellton-Mohawk I.D.D.	15,117	263,031	278,000	-14,969	35,195	400,517	424,350	-23,833
BLM Permittees (Below Imperial Dam)	16	110	110	0	25	169	169	--
City of Yuma	953	13,496	15,151	-1,655	2,391	24,994	27,500	-2,506
U.S. Marine Corps Air Station Yuma	124	1,236	1,265	---	124	1,236	1,265	-29
Union Pacific Railroad	4	29	29	---	9	48	48	0
University of Arizona	98	897	897	---	98	897	897	0
Yuma Union High School District	11	150	150	---	15	200	200	0
Desert Lawn Memorial	4	27	27	---	6	38	38	0
North Gila Valley Irrigation District	339	9,050	9,486	---	3,952	41,604	43,500	-1,896
Yuma Irrigation District	3,907	37,707	38,958	---	6,969	70,234	73,100	-2,866

	Use To Date CY 2023	Forecast Use CY 2023	Estimated Use CY 2023	Excess to Estimated Use CY 2023	Diversion To Date CY 2023	Forecast Diversion CY 2023	Approved Diversion CY 2023	Excess to Approved Diversion CY 2023
<b>WATER USER</b>								
Yuma Mesa I.D.D.	5,340	101,723	104,430	---	18,618	220,915	230,252	-9,337
Unit "B" I.D.D.	951	14,125	13,421	---	2,769	28,190	28,300	-110
Arizona State Land Department - Agriculture	434	4,295	4,295	---	669	6,607	6,607	0
Ott Family	39	269	269	---	61	414	414	0
Ogram Boys' Enterprises	87	595	595	---	134	916	916	0
Fort Yuma Indian Reservation	457	3,123	3,123	---	704	4,804	4,804	0
BLM - Leased by M. Lee	21	145	145	---	33	223	223	0
Armon Curtis	19	127	127	---	29	195	195	0
Yuma County Water Users' Association	25,840	271,016	277,259	---	44,938	363,957	367,400	-3,443
R. Griffin	4	30	30	---	7	46	46	0
Power	11	74	74	---	17	114	114	0
Cocopah Indian Tribe (PPR No. 7)	27	184	184	---	41	283	283	0
Griffin Ranches (PPR No. 7)	11	74	74	---	17	114	114	0
Milton Phillips (PPR No. 7)	6	44	44	---	10	67	67	0
Griffin Family Ltd. Partnership (PPR No. 7)	2	17	17	---	4	26	26	0
Cocopah Indian Reservation	201	1,872	1,820	---	207	2,791	2,812	-21
Bureau of Reclamation - Yuma Area Office	30	206	206	---	30	206	206	0
Arizona Public Service Company	0	0	0	---	0	0	0	0
Gary Pasquinelli	31	209	209	---	47	321	321	0
<b>Total Arizona</b>	<b>186,893</b>	<b>2,360,778</b>	<b>2,411,032</b>		<b>283,419</b>	<b>3,208,457</b>	<b>3,307,197</b>	
Central Arizona Project (CAP)	93,631	1,141,443				1,141,443		
All Others	93,262	1,219,335	1,245,812			2,066,999	2,141,972	
Yuma Mesa Division, Gila Project	9,586	148,480	152,874	-4,394		332,753		
Total 242 Well Field Pumping <sup>3</sup>	6,157	44,374	48,129					

#### ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Arizona Basic Apportionment	2,800,000
Reduction for Tier 2a Shortage <sup>4</sup>	(400,000)
Reduction for Arizona DCP Contributions <sup>5</sup>	(192,000)
System Conservation Water - Pilot System Conservation Program <sup>6</sup>	(500)
System Conservation Water - Reclamation (Estimated) <sup>7</sup>	(13,245)
Delivery of ICS (CAWCD) up to	70,000
<b>Total State Adjusted Apportionment</b>	<b>2,264,255</b>
Excess to Total State Adjusted Apportionment	96,523
<b>Estimated Allowable Use for CAP</b>	<b>1,049,434</b>

<sup>1</sup> Approved/forecasted values include up to 1,250 AF of diversion for domestic use pursuant to MVIDD's Subcontract No. 09-101 with the Mohave County Water Authority.

<sup>2</sup> Forecast Use incorporates CAWCD's operational schedule dated January 17, 2023.

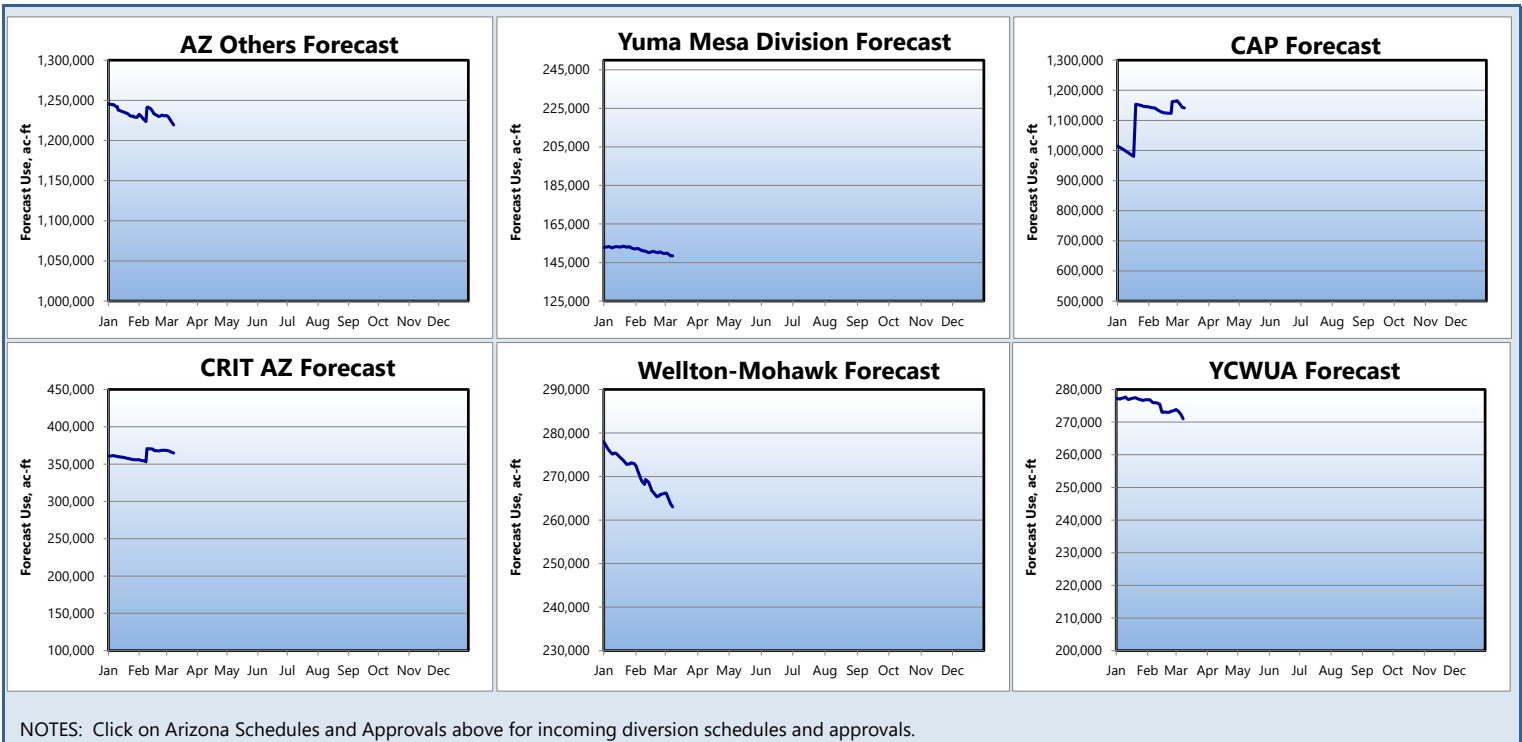
<sup>3</sup> In accordance with the Colorado River Water Conservation Letter Agreement 16-XX-30-W0603, Revision No. 1 (Revised Letter Agreement) between Reclamation and the Central Arizona Water Conservation District (CAWCD), pumping above the Historical Average Baseline (31,129 AF), up to 32,000 AF per year, will remain in Lake Mead as Colorado River System water.

<sup>4</sup> In accordance with Section XI.G.2.D.1.b of the 2007 Interim Guidelines, a Tier 2 Shortage Condition will govern the operation of Lake Mead and the lower Colorado River in 2023, resulting in a 400,000 AF reduction to the state of Arizona's Colorado River basic apportionment.

<sup>5</sup> In accordance with Section III.B.1.a of *Lower Basin Drought Contingency Operations* (LBOs), the state of Arizona is required to make DCP Contributions of 192,000 AF in 2023. CAWCD agrees to fulfill Arizona's DCP Contributions in accordance with Section II.3.b of the *Agreement Regarding Lower Basin Drought Contingency Plan Obligations*. In accordance with LBOs, CAWCD anticipates making its required DCP Contributions through the simultaneous creation and conversion of Extraordinary Conservation (EC) ICS to DCP ICS and the creation of Non-ICS Water (reductions in consumptive use). CAWCD has an approved ICS Plan for the creation of up to 100,000 AF of EC ICS in 2023. The actual amount of EC ICS created by CAWCD and converted to DCP ICS and credited toward the DCP Contribution will be based on final accounting and verification. In accordance with Section XI.G.3.B.4 of the 2007 Interim Guidelines and Section IV.B of LBOs, the total amount of EC ICS that may be created by the states of Arizona, California, and Nevada in 2023 will be limited to 625,000 AF. Additionally, the total amount of EC ICS, Binational ICS and DCP ICS accumulated in Arizona, California and Nevada's ICS Accounts will be limited in accordance with Section IV.C. of LBOs.

<sup>6</sup> The estimated amount of System Conservation Water that will be created by the City of Bullhead City pursuant to System Conservation Implementation Agreement No. 15-XX-30-W0587, as amended. This System Conservation Water will remain in Lake Mead to benefit system storage.

<sup>7</sup> The estimated amount of System Conservation Water that will be created by additional pumping from the 242 Well Field Expansion pursuant to Letter Agreement No. 16-XX-30-W0603, Revision No. 1, which will remain in Lake Mead to benefit system storage.



NOTES: Click on Arizona Schedules and Approvals above for incoming diversion schedules and approvals.



**LOWER COLORADO BASIN REGION  
CY 2023**

**NOTE:**  
 • Diversions and uses that are pending approval are noted in *red italics*.  
 • Water users with a consumptive use entitlement - **Excess to Estimated Use** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a diversion entitlement.  
 • Water user with a diversion entitlement - **Excess to Approved Diversion** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a consumptive use entitlement.

**CALIFORNIA WATER USERS**

Forecast end of year diversion/consumptive use  
 Forecast based on use to date and approved annual water orders  
[California Schedules and Approvals](#)

WATER USER	Use	Forecast	Estimated	Excess to	Diversion	Forecast	Approved	Excess to
	To Date	Use	Use	Estimated	To Date	Diversion	Diversion	Approved
	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023
Fort Mojave Indian Reservation, CA	598	8,541	8,994	---	1,111	15,877	16,720	-843
City of Needles (includes LCWSP use)	196	1,605	1,605	0	277	2,261	2,261	0
PPR No. 30 (Stephenson)	3	19	19	---	5	34	34	0
PPR No. 38 (Andrade)	4	25	25	---	7	45	45	---
PPR No. 40 (Cooper)	1	6	6	---	1	10	10	---
Chemehuevi Indian Reservation	27	183	183	---	1,661	11,340	11,340	0
The Metropolitan Water District of Southern California <sup>1</sup>	85,791	995,890	---	---	86,340	998,528	---	---
Colorado River Indian Reservation, CA	642	4,380	4,380	---	1,063	7,258	7,258	0
Palo Verde Irrigation District	17,832	403,840	423,836	---	78,603	838,668	862,000	-23,332
PPR No. 31 (Mendivil)	0	3	3	---	1	6	6	0
Yuma Project Reservation Division	2,825	46,304	48,668	---	8,286	94,624	98,898	-4,274
Yuma Project Reservation Division - Bard Unit	---	---	---	---	4,325	49,370	51,500	-2,130
Yuma Project Reservation Division - Indian Unit	---	---	---	---	3,961	45,254	47,398	-2,144
Fort Yuma Indian Reservation - Ranch 5 (Surface Delivery)	117	1,194	1,194	---	211	2,160	2,160	0
Fort Yuma Indian Reservation - Other Ranches (Pumpers)	167	1,137	1,137	---	301	2,058	2,058	0
Yuma Island Pumpers	214	1,463	1,463	---	388	2,647	2,647	0
Imperial Irrigation District	267,055	2,587,075	2,617,800	-30,725	275,919	2,728,195	2,767,270	---
Coachella Valley Water District	37,251	377,606	389,000	-11,394	38,546	400,103	413,155	---
Other LCWSP Contractors	77	526	526	---	120	819	819	0
City of Winterhaven	8	58	58	---	12	81	81	0
<b>Total California</b>	<b>412,808</b>	<b>4,429,855</b>	<b>4,492,614</b>		<b>492,852</b>	<b>5,104,714</b>	<b>5,183,062</b>	

**CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION**

California Basic Apportionment	4,400,000
System Conservation Water - Pilot System Conservation Program <sup>2</sup>	(145)
System Conservation Water - PVID Following Program <sup>3</sup>	(58,400)
<b>Total State Adjusted Apportionment</b>	<b>4,341,455</b>
Excess to Total State Adjusted Apportionment	88,400

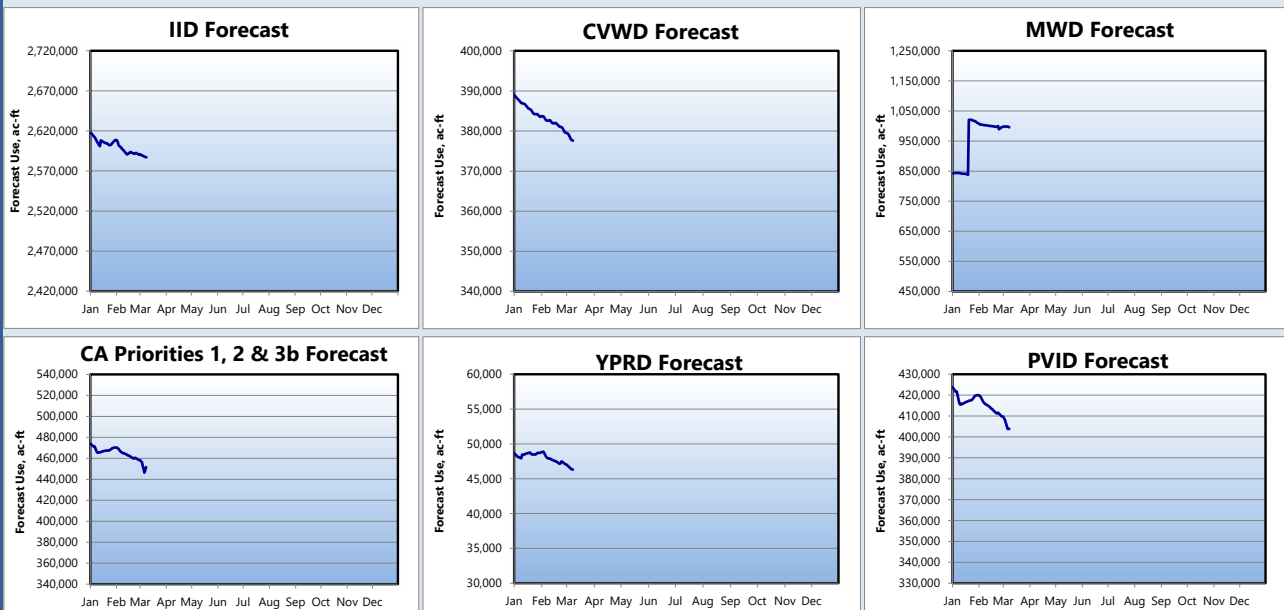
**Estimated Allowable Use for MWD**

**907,490**

<sup>1</sup> Forecast Use is based on MWD's operational projected diversion of 1.023 maf.

<sup>2</sup> System Conservation Water to be conserved by the City of Needles pursuant to System Conservation Implementation Agreement No. 15-XX-30-W0596, executed under the Pilot System Conservation Program. This water will remain in Lake Mead to benefit system storage.

<sup>3</sup> The estimated amount of System Conservation Water that will be created pursuant to Funding Agreement No. 21-XX-30-W0714 (Funding Agreement). This System Conservation Water will remain in Lake Mead to benefit system storage. In accordance with the Funding Agreement, the Bureau of Reclamation intends to apply 50 percent this water towards the Secretary of the Interior's commitment to create or conserve 100,000 AF or more per annum of System Conservation Water pursuant to Section 3.b of the *Lower Basin Drought Contingency Plan Agreement*.



NOTES: Click on California Schedules and Approvals above for incoming diversion schedules and approvals.



**LOWER COLORADO BASIN REGION  
CY 2023**

NOTE:  
 • Diversions and uses that are pending approval are noted in *red italics*.  
 • Water users with a consumptive use entitlement - **Excess to Estimated Use** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a diversion entitlement.  
 • Water user with a diversion entitlement - **Excess to Approved Diversion** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a consumptive use entitlement.

NEVADA WATER USERS

Forecast end of year diversion/consumptive use

Forecast based on use to date and approved annual water orders

[Nevada Schedules and Approvals](#)

WATER USER	Use	Forecast	Estimated	Excess to	Diversion	Forecast	Excess to	Excess to
	To Date	Use	Use	Estimated	To Date	Diversion	Approved	Approved
	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	Diversion	Diversion
Robert B. Griffith Water Project (SNWS)	61,186	447,412		---	61,186	447,412		---
Lake Mead NRA, NV - Diversions from Lake Mead	136	1,500	1,500	---	136	1,500	1,500	0
Lake Mead NRA, NV - Diversions from Lake Mohave	54	500	500	---	54	500	500	0
Basic Management, Inc.	0	0	0	---	0	0	0	0
City of Henderson (BMI Delivery)	0	0	0	---	0	0	0	0
Nevada Department of Wildlife	0	0	0	0	0	0	0	---
Pacific Coast Building Products, Inc.	89	928	928	---	89	928	928	0
Boulder Canyon Project	26	177	177	---	44	300	300	0
Big Bend Water District	287	4,688	4,688	---	778	10,000	10,000	0
Fort Mojave Indian Tribe	82	4,330	4,624	---	123	6,461	6,900	-439
Las Vegas Wash Return Flows	-44,531	-232,473	-231,289	---				
<b>Total Nevada<sup>1</sup></b>	<b>17,329</b>	<b>227,062</b>	<b>223,000</b>	<b>0</b>	<b>62,410</b>	<b>467,101</b>	<b>462,000</b>	<b>-439</b>
Southern Nevada Water System (SNWS)	16,655	214,939				447,412		
All Others	674	12,123				19,689		
Nevada Uses Above Hoover	16,960	218,044				450,640		
Nevada Uses Below Hoover	369	9,018				16,461		

**Tributary Conservation (TC) Intentionally Created Surplus (ICS)**

Southern Nevada Water Authority (SNWA) Creation of TC ICS (Approved)<sup>2</sup> 44,000

**NEVADA ADJUSTED APPORTIONMENT CALCULATION**

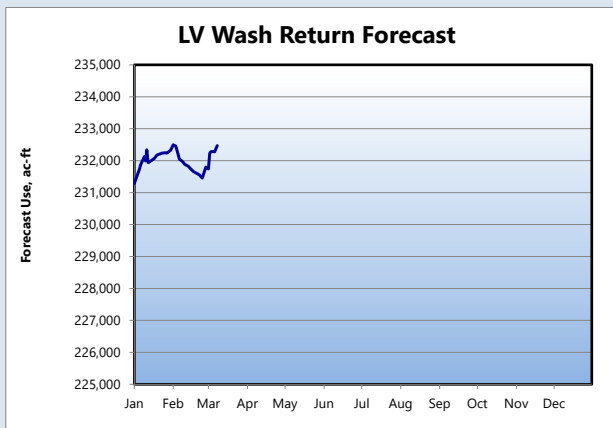
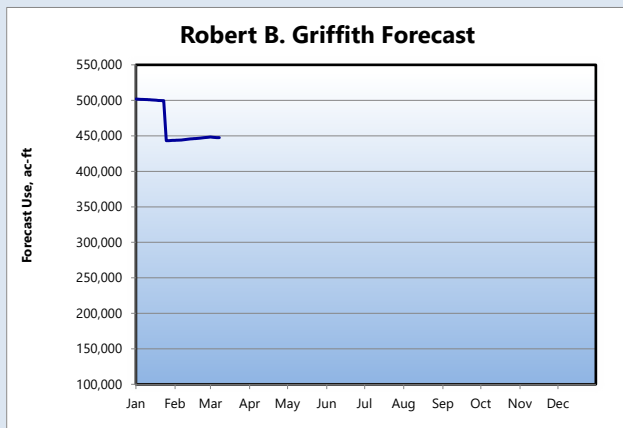
Nevada Basic Apportionment	300,000
Reduction for Tier 2 Shortage <sup>3</sup>	(17,000)
Creation of Extraordinary Conservation ICS - SNWA (Estimated) <sup>4</sup>	(55,938)
<b>Total State Adjusted Apportionment</b>	<b>227,062</b>
Excess to Total State Adjusted Apportionment	0

<sup>1</sup> The State of Nevada has been approved to consumptively use up to 283,000 AF in CY 2023. Forecast Use shown here is based on Nevada's operational projected consumptive use of 223,000 AF.

<sup>2</sup> SNWA has an approved ICS Plan for the creation of up to 44,000 AF of TC ICS in 2023. The actual amount of TC ICS created by SNWA in 2023 will be based on final accounting and verification.

<sup>3</sup> In accordance with Section XI.G.2.D.1.B of the 2007 Interim Guidelines, a Tier 2 Shortage Condition will govern the operation of Lake Mead and the lower Colorado River in 2023, resulting in a 17,000 AF reduction to the state of Nevada's Colorado River basic apportionment.

<sup>4</sup> SNWA has an approved ICS Plan for the creation of up to 100,000 AF of Extraordinary Conservation (EC) ICS in 2023. The actual amount of EC ICS created by SNWA in 2023 will be based on final accounting and verification. In accordance with Section XI.G.3.B.4 of the 2007 Interim Guidelines and Section IV.B of *Lower Basin Drought Contingency Operations* (LBOps), the total amount of EC ICS that may be created by the states of Arizona, California, and Nevada in 2023 will be limited to 625,000 AF. Additionally, the total amount of EC ICS, Binational ICS and DCP ICS accumulated in Arizona, California and Nevada's ICS Accounts will be limited in accordance with Section IV.C. of LBOps.



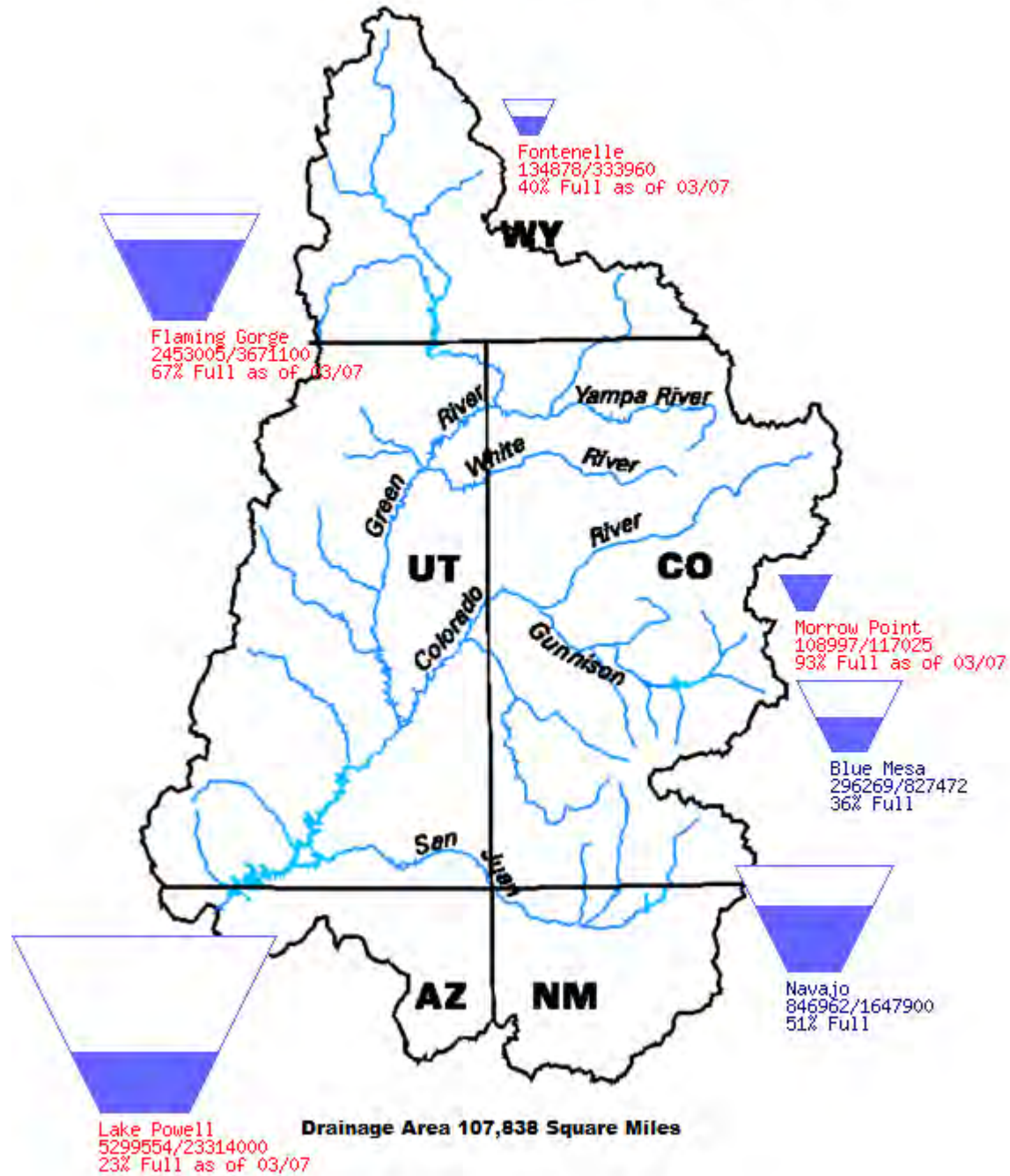
NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

# Upper Colorado Region Water Resources Group

## River Basin Tea-Cup Diagrams

Data Current as of:  
03/08/2023

### Upper Colorado River Drainage Basin

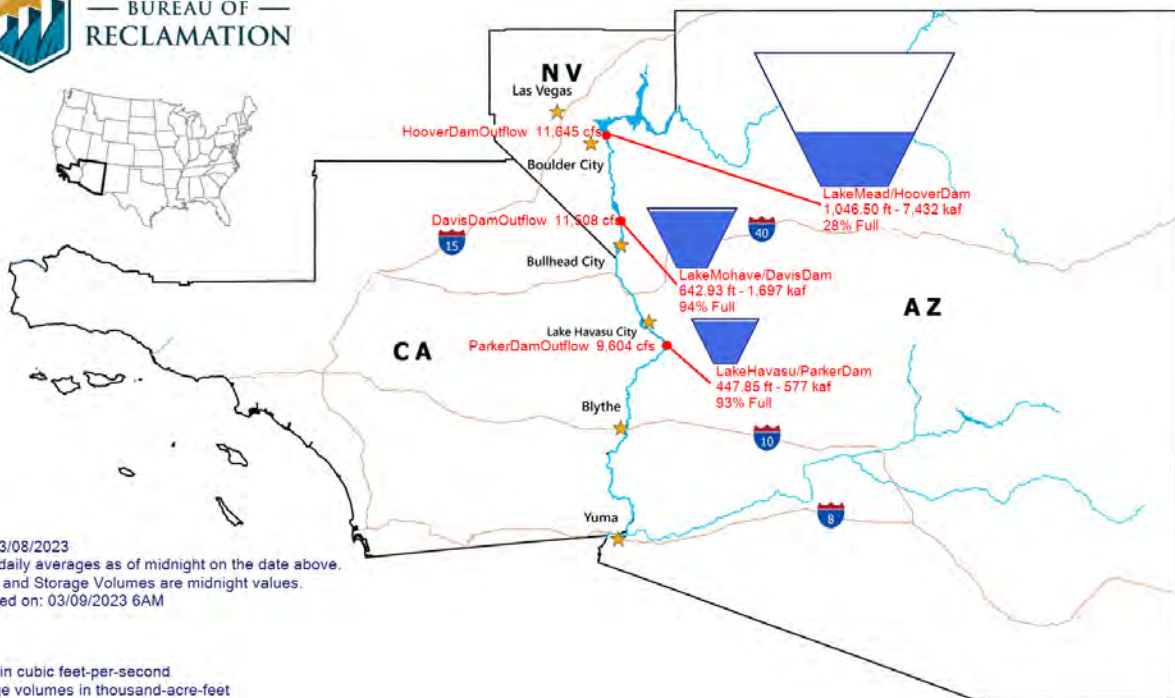




# Lower Colorado River Teacup Diagram



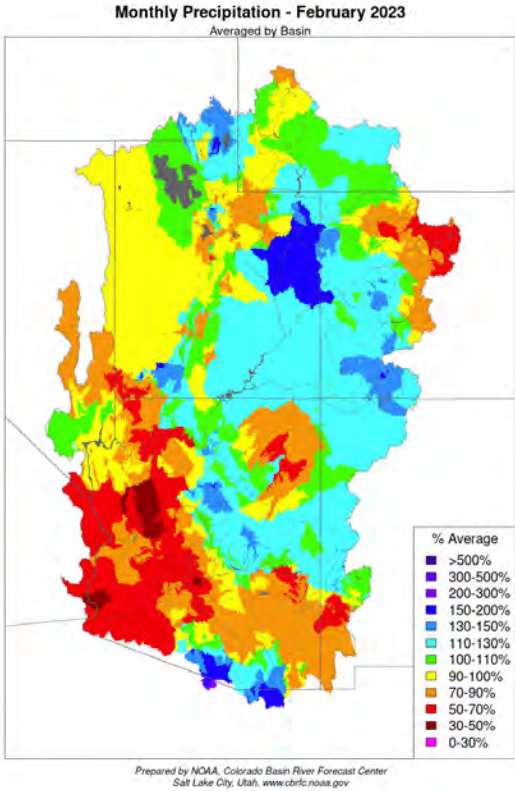
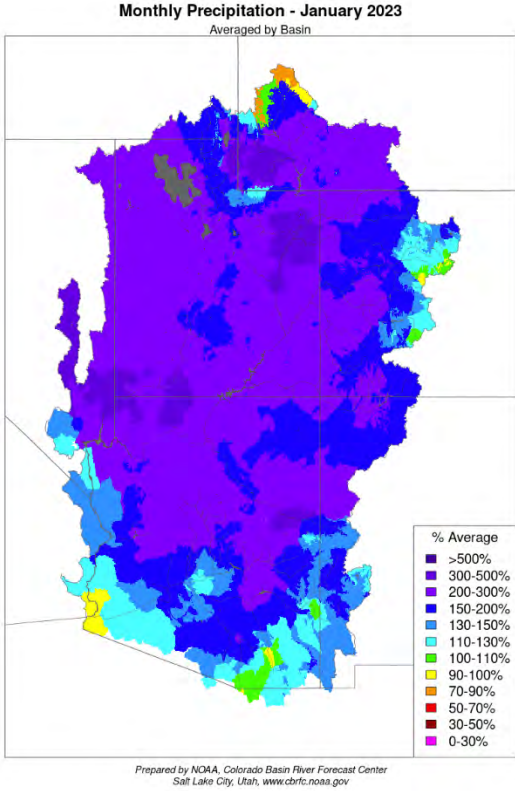
BUREAU OF RECLAMATION



Data for: 03/08/2023  
Flows are daily averages as of midnight on the date above.  
Elevations and Storage Volumes are midnight values.  
Last updated on: 03/09/2023 6AM

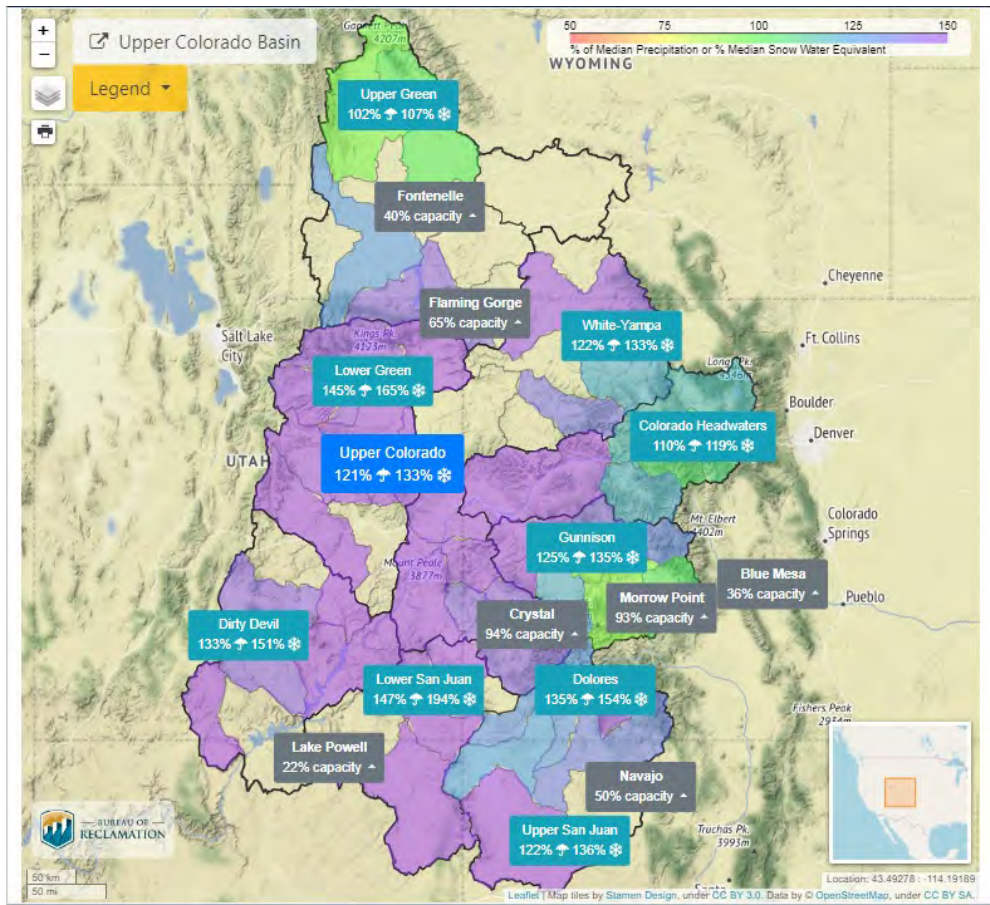
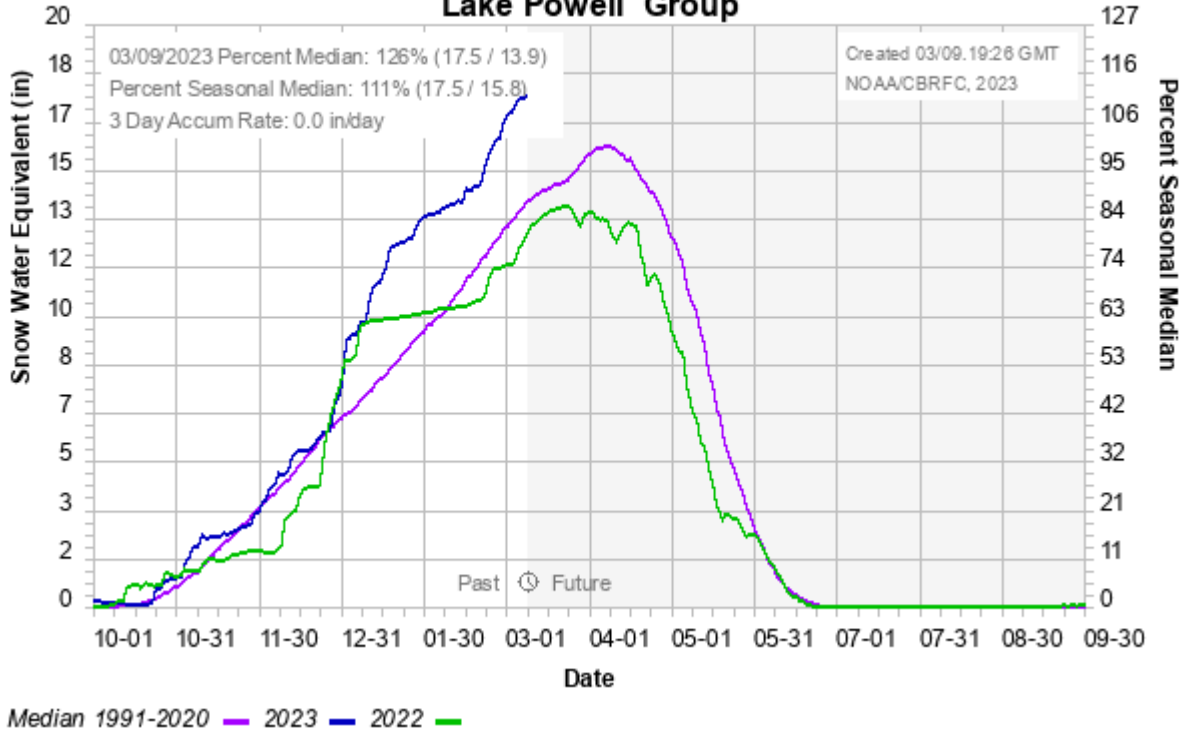
LEGEND:  
cfs: Flows in cubic feet-per-second  
kaf: Storage volumes in thousand-acre-feet  
ft: Elevations in feet above mean-sea-level

NOAA National Weather Service Monthly Precipitation Map January and February 2023



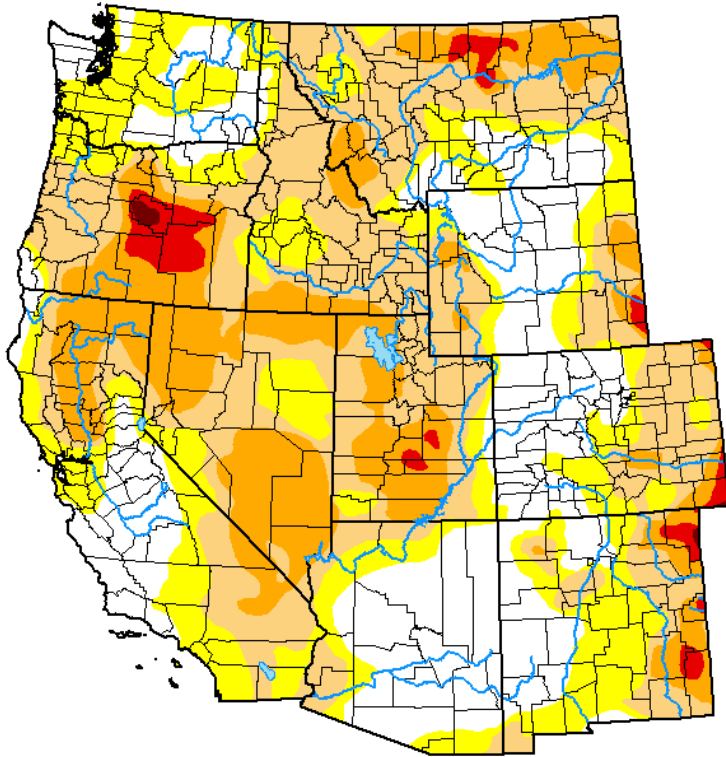


# Colorado Basin River Forecast Center Lake Powell Group



# U.S. Drought Monitor West

**March 7, 2023**  
(Released Thursday, Mar. 9, 2023)  
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	25.66	74.34	51.08	20.32	2.38	0.15
<b>Last Week</b> <small>02-28-2023</small>	24.28	75.72	53.55	22.35	3.09	0.15
<b>3 Months Ago</b> <small>12-06-2022</small>	7.93	92.07	66.64	45.25	16.00	2.02
<b>Start of Calendar Year</b> <small>01-03-2023</small>	12.08	87.92	62.42	38.84	12.41	0.27
<b>Start of Water Year</b> <small>09-27-2022</small>	3.89	96.11	73.90	47.71	19.37	2.63
<b>One Year Ago</b> <small>03-08-2022</small>	5.15	94.85	90.17	70.74	23.88	2.91

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Deborah Bathke  
National Drought Mitigation Center

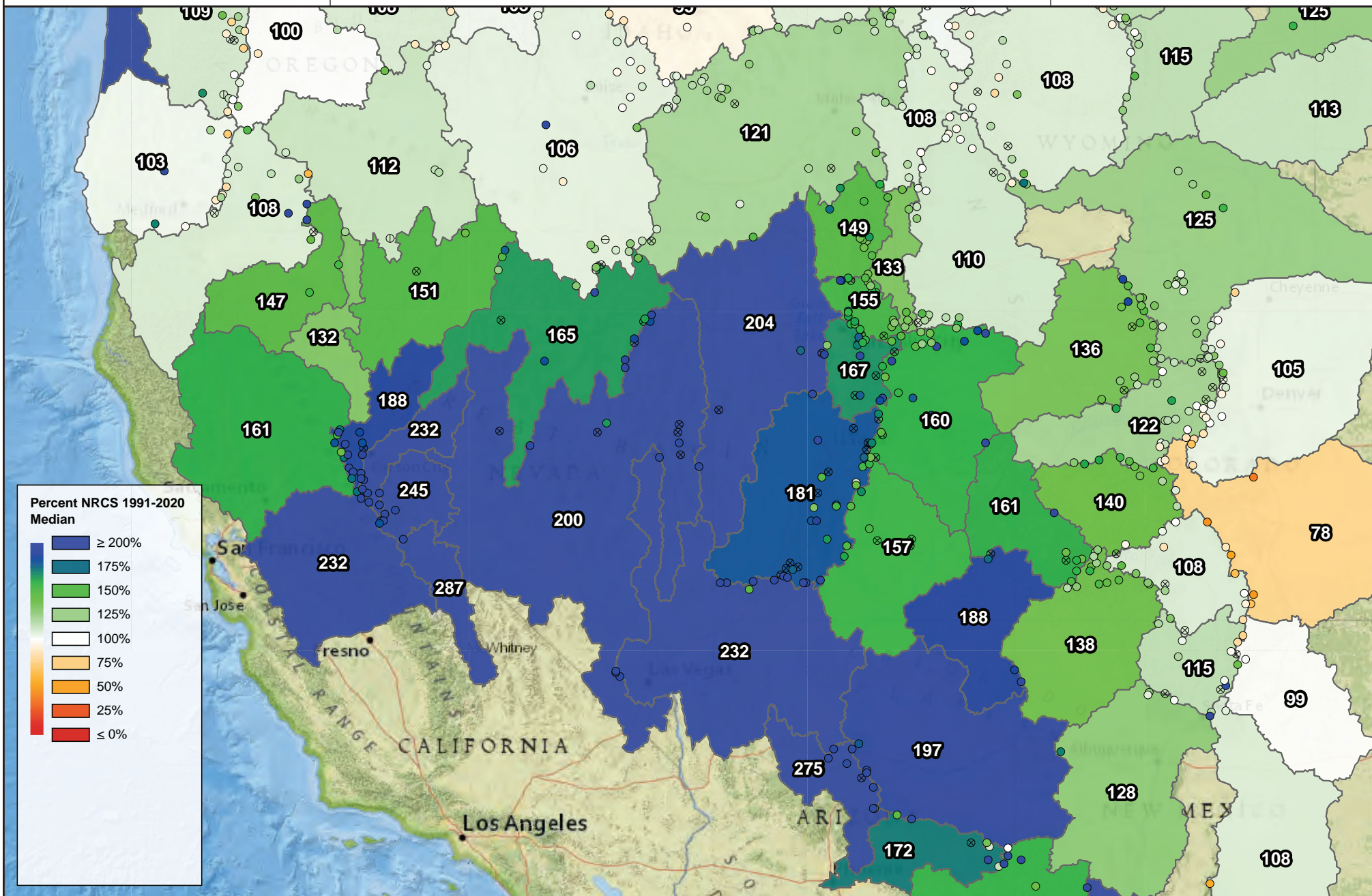


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

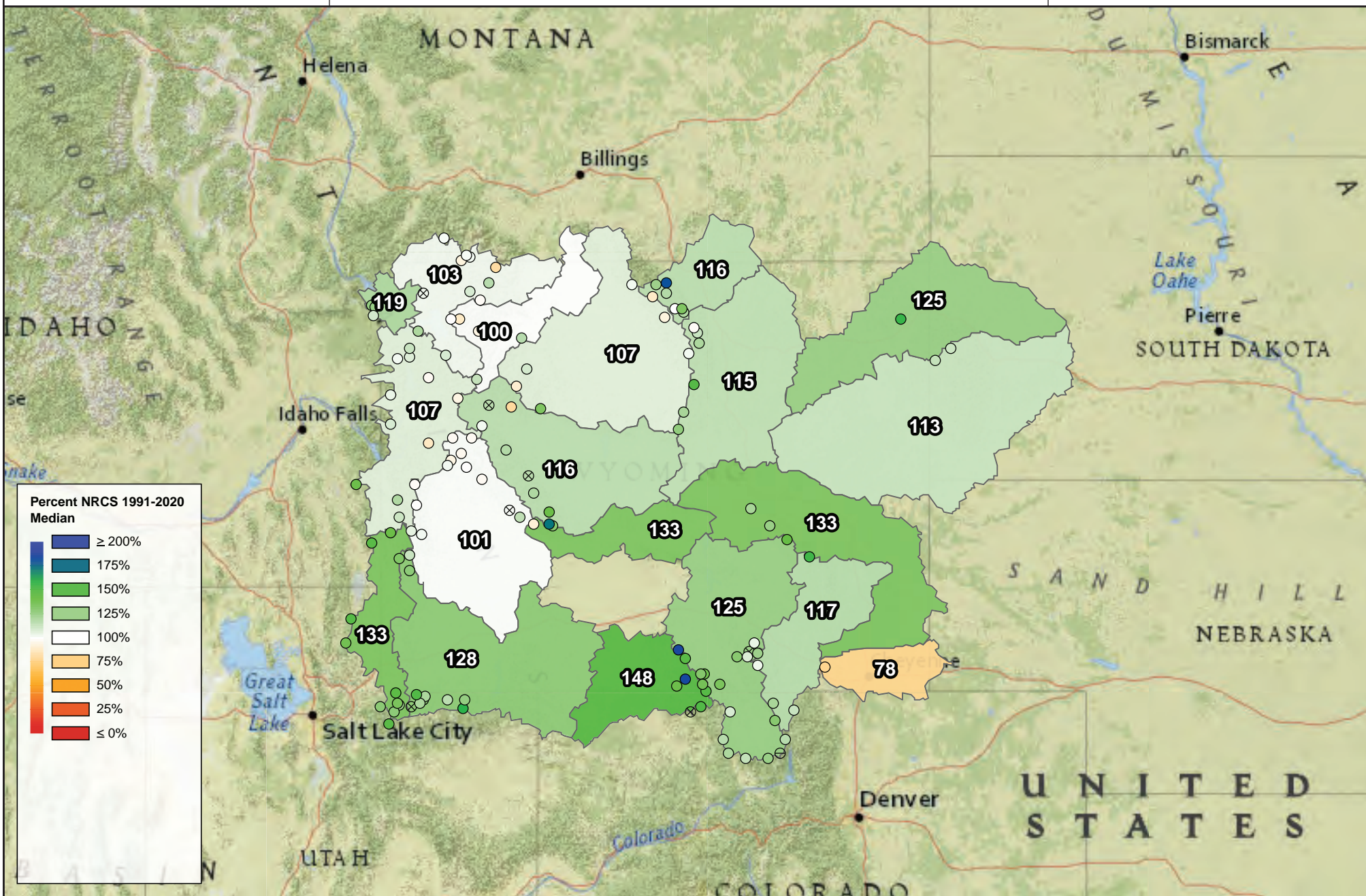
Snow Water Equivalent

Percent NRCS 1991-2020 Median

March 1st, 2023



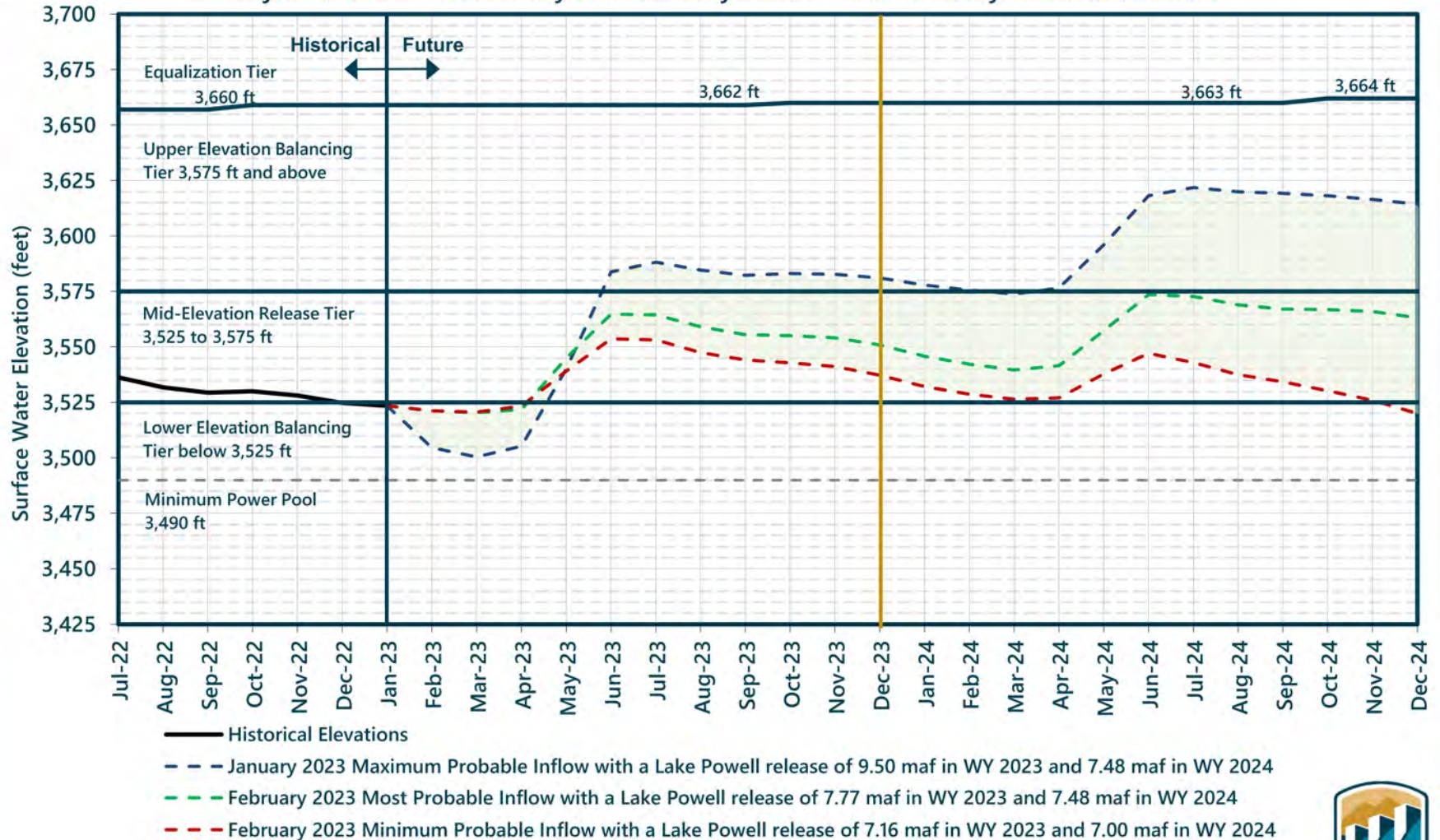






# Lake Powell End of Month Elevations<sup>1</sup>

Projections from the January and February 2023 24-Month Study Inflow Scenarios



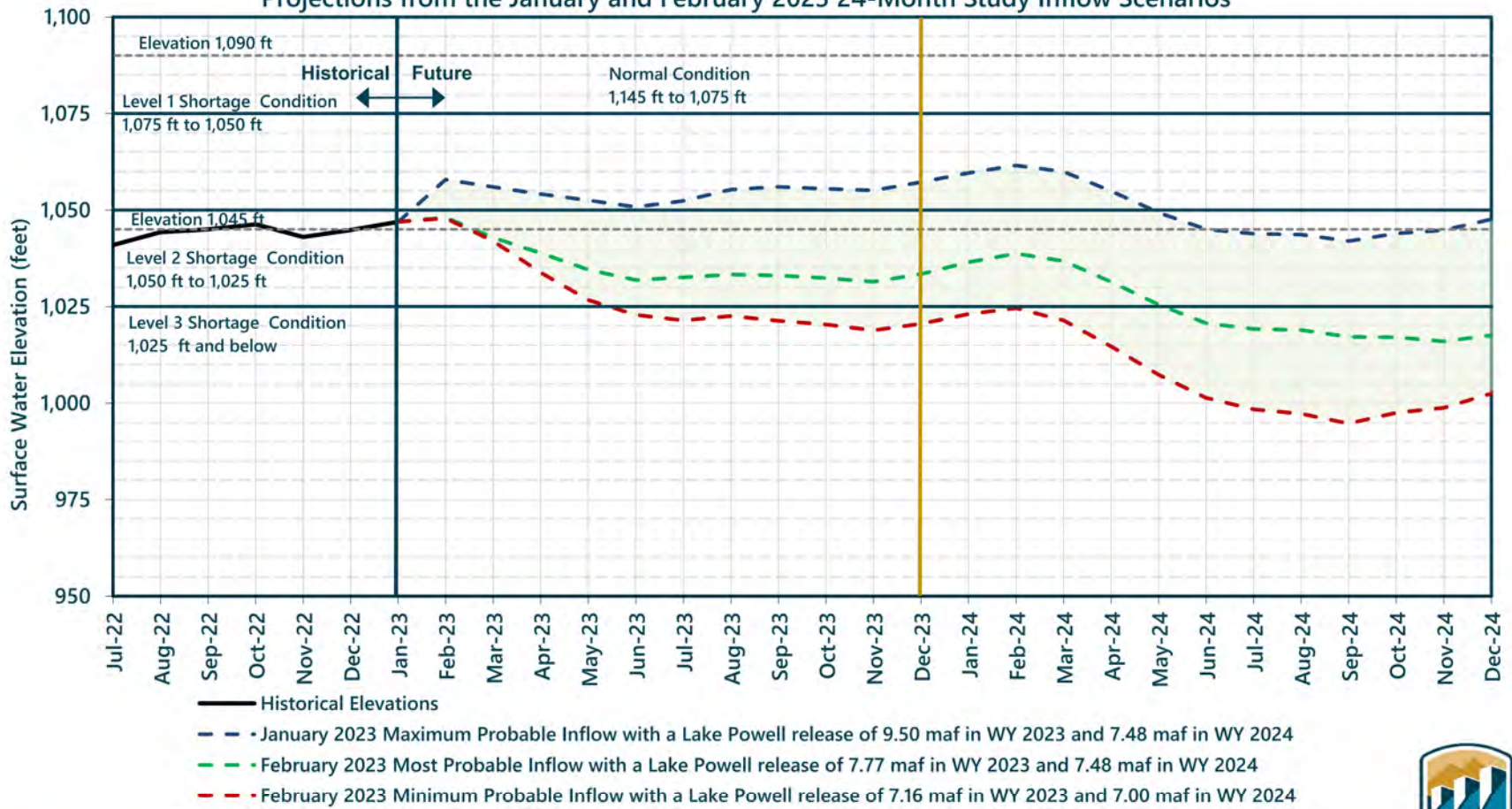
<sup>1</sup> Projected Lake Powell end of month physical elevations from the latest 24-Month Study inflow scenarios.

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



# Lake Mead End of Month Elevations<sup>1</sup>

Projections from the January and February 2023 24-Month Study Inflow Scenarios



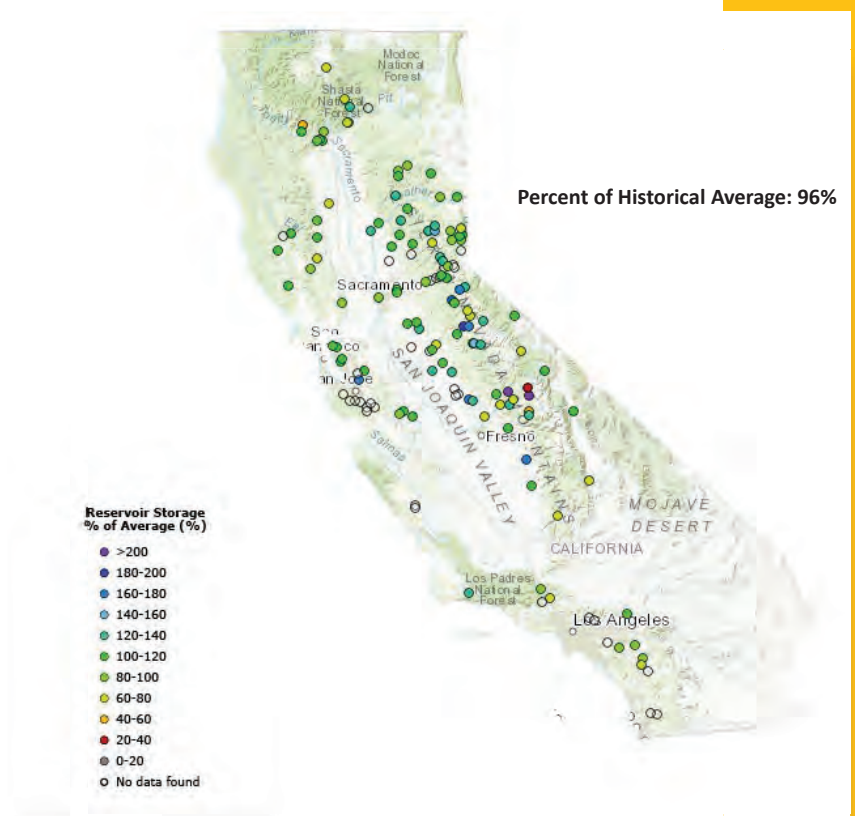
<sup>1</sup> Projected Lake Mead end of month physical elevations from the latest 24-Month Study inflow scenarios. The Drought Response Operations Agreement (DROA) is available online at: <https://www.usbr.gov/dcp/finaldocs.html>.





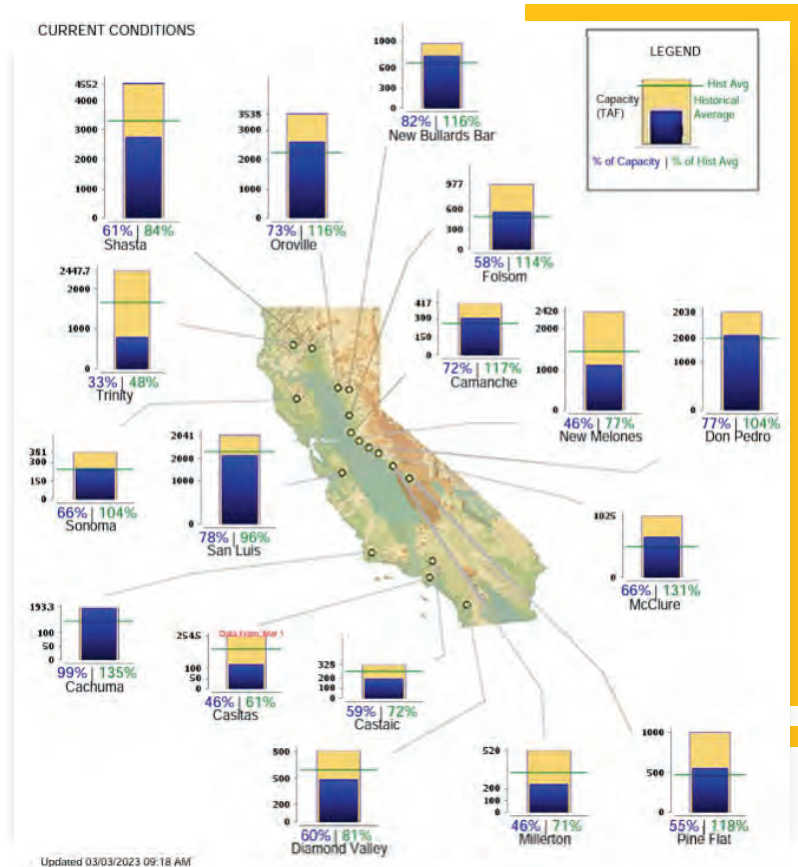


# Reservoir Storage % of Average – 03/02/2023

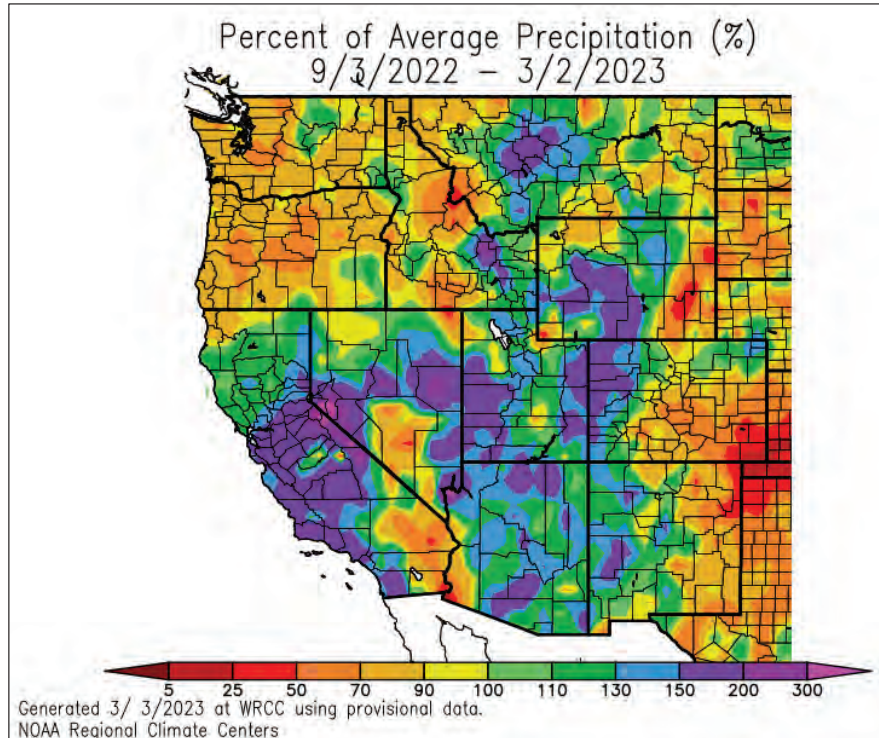


<https://cww.water.ca.gov/>

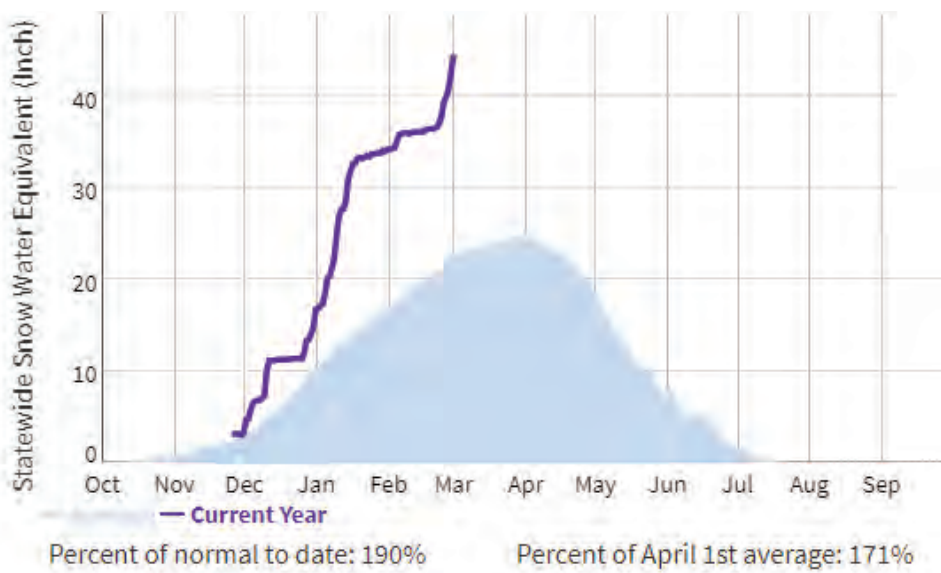
# Current Reservoir Conditions



## CA Statewide Precipitation – 136% of average



<https://wrcc.dri.edu/cgi-bin/anomimage.pl?wrc6mPpct.png>

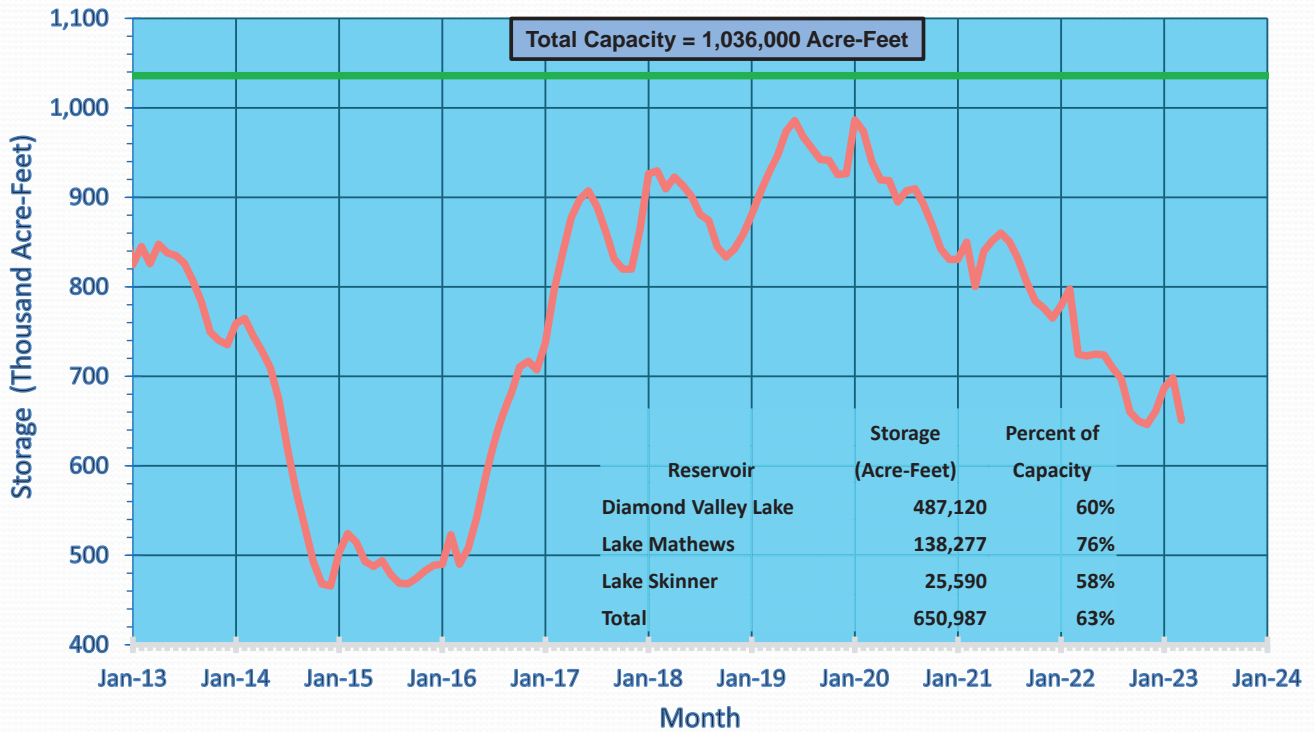


CA  
Statewide  
Snowpack  
Chart as of  
03/02/2023

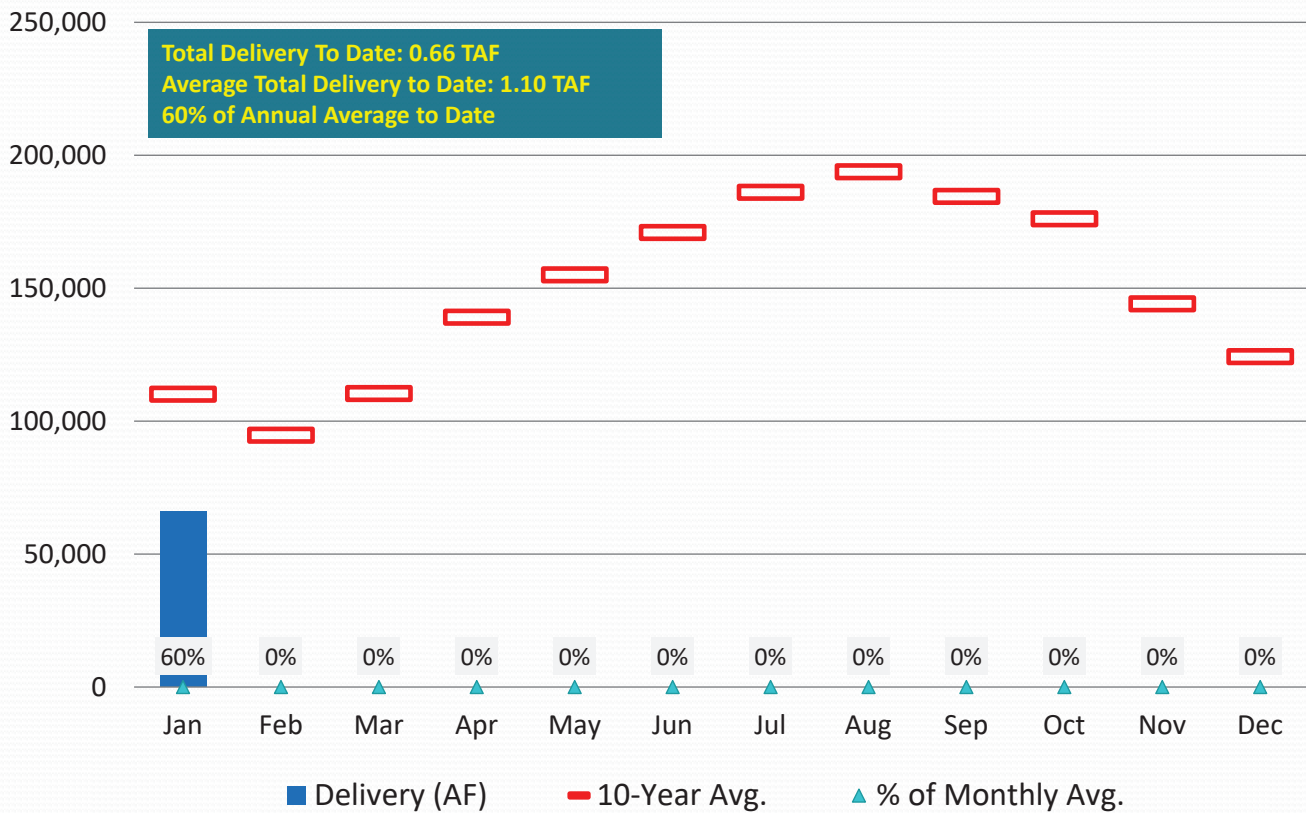


## MWD's Combined Reservoir Storage as of March 1, 2023

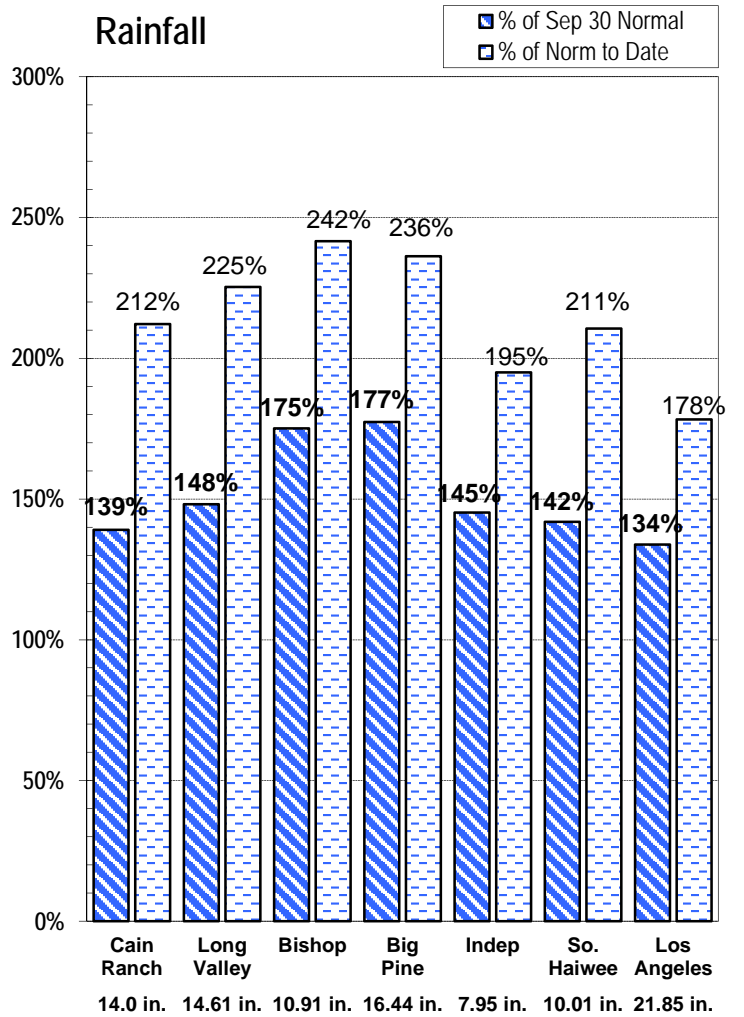
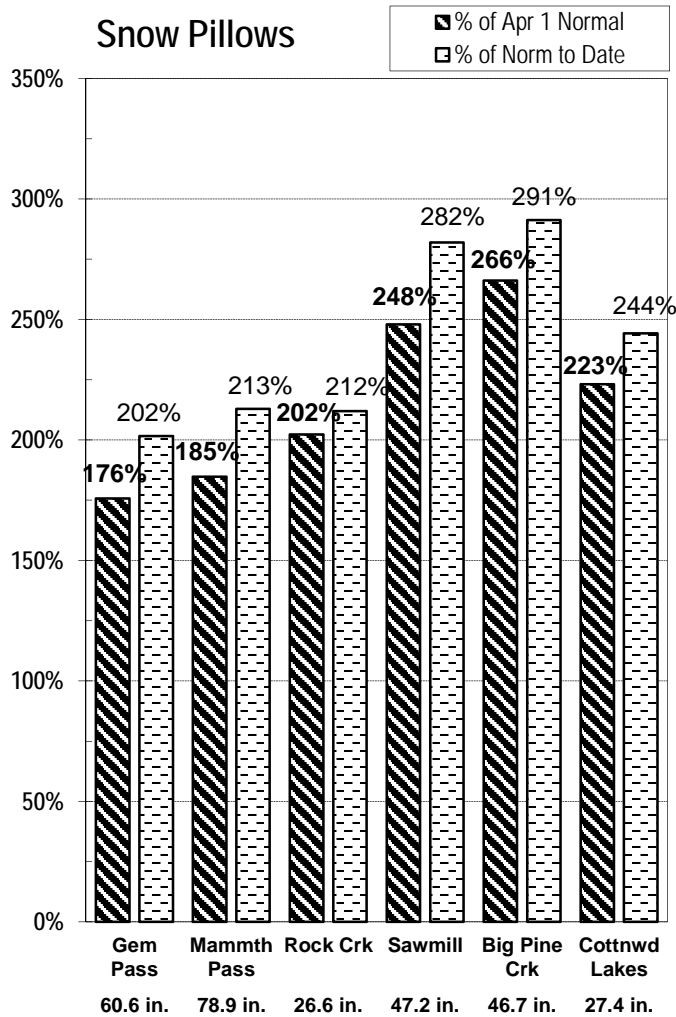
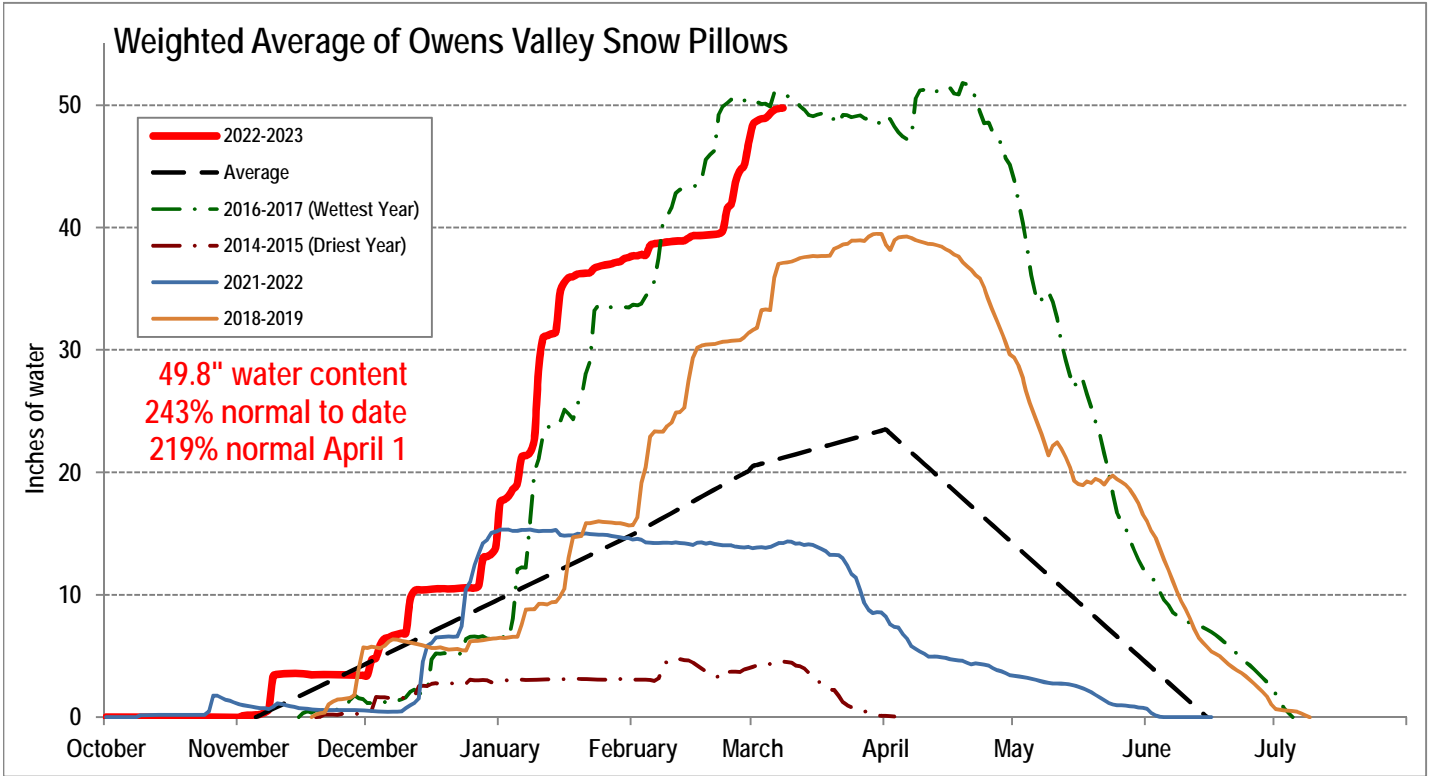
### Lake Skinner, Lake Mathews, and Diamond Valley Lake



## 2023 Water Deliveries to Agencies (AF)



# EASTERN SIERRA CURRENT PRECIPITATION CONDITIONS March 8, 2023



Measurement as Inches Water Content; Precipitation totals are cumulative for water year beginning Oct 1





**The States of Arizona, California, and Nevada  
Governor's Representatives on Colorado River Operations**

February 28, 2023

The Honorable Tommy Beaudreau  
Deputy Secretary  
Department of Interior  
1849 C Street, NW  
Washington, D.C. 20240

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

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

Dear Deputy Secretary Beaudreau, Assistant Secretary Trujillo, and Commissioner Touton:

The Governor's representatives for California, Nevada and Arizona are writing to you in response to the Upper Colorado River Commission's February 27, 2023, proposal to amend the 2022 Drought Response Operations Plan.

We agree that a temporary pause in the planned releases for March and April 2023 is appropriate given the anticipated improvement in runoff projections in the Upper Colorado River. However, we believe releases should be continued later this year unless actual above-average runoff materializing at Lake Powell, which can only be determined later this spring. Just last year, we witnessed a precipitous drop in the runoff projection between February and May in the amount of approximately 1 million acre-feet. We must be able to adapt this year if the current runoff projections decline.

As to the additional issues raised in the February 27, 2023 proposed amendment, we request that the Department of the Interior withhold any decision regarding those issues until a consultation process among the 7 Governor's representatives for the Basin States as required by the Agreement Concerning Colorado River Drought Contingency Management and Operations (Sections 4.b.iii, 4.c.i., 4.d.ii, and 4.d.iv) and Paragraph G of the Agreement Concerning Colorado River Drought Contingency Management and Operations, is completed.

As you are aware, the 7 Basin States Governor Representatives have agreed to discuss and consult regarding the additional issues raised in the proposed Drought Response Operations Plan amendment. The Lower Basin Principals are committed to working with our colleagues in the Upper Division States on the issues they have raised and to continue to identify and implement actions within the framework of the 2007 Interim Guidelines for Colorado River Operations and the 2019 Drought Contingency Plans that will protect the Colorado River system.


Sincerely,

X 

Thomas Buschatzke  
Arizona Governor's Representative

X 

JB Hamby  
California Governor's Representative

X 

John Entsminger  
Nevada Governor's Representative