

November 30, 2023

NOTICE OF SIGNING CEREMONY AND REGULAR MEETING OF THE COLORADO RIVER BOARD OF CALIFORNIA

A signing ceremony for California's System Conservation Implementation Agreements will be held prior to the meeting of the Colorado River Board. Members of the public are welcome to attend as follows:

California Conservation Agreements Signing Ceremony

Date: Wednesday, December 13, 2023

Time: 10:00 AM

Place: Champagne I Room

Paris Las Vegas

3655 S Las Vegas Blvd Las Vegas, NV 89109

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:

Board Meeting

Date: Wednesday, December 13, 2023

Time: 10:30 AM

Place: Champagne I Room

Paris Las Vegas

3655 S Las Vegas Blvd Las Vegas, NV 89109

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 and will be accepted up until 5:00 p.m. on December 11, 2023. 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.

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.

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



CALIFORNIA CONSERVATION AGREEMENTS SIGNING CEREMONY

Wednesday, December 13, 2023 — 10:00 AM

The public is invited to attend the signing of California's System Conservation Implementation Agreements. These agreements will implement creation of hundreds of thousands of acre-feet of water to the Colorado River system over the next three years.

REGULAR MEETING AGENDA Wednesday, December 13, 2023 — 10:30 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

PUBLIC COMMENTS (Limited to 5 minutes.)

REMARKS FROM BUREAU OF RECLAMATION COMMISSIONER, CAMILLE TOUTON

REMARKS FROM US SENATOR ALEX PADILLA

CALIFORNIA WATER IN THE 21ST CENTURY: LEADING THROUGH RESILIENCY

ADMINISTRATION

- 1. Consideration and approval of meeting minutes of the September 13th, 2023 board meeting (**Action**)
- 2. Consideration and approval of meeting minutes of the October 11th, 2023 board meeting (**Action**)
- 3. Consideration and approval of 2024 Board meeting schedule (Action)



REPORTS

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

EXECUTIVE SESSION¹

OTHER BUSINESS

FUTURE AGENDA ITEMS & ANNOUNCEMENTS

ADJOURNMENT

Next Scheduled Board Meeting

Date: Wednesday, January 15, 2023
Cancelled

¹ 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.

Minutes of Meeting COLORADO RIVER BOARD OF CALIFORNIA Wednesday, September 13, 2023

A meeting of the Colorado River Board of California (Board) was held on Wednesday, September 13, 2023, at the PVID Board Room, 180 W 14th Ave, Blythe, CA, 92225.

Board Members and Alternates Present:

Peter Nelson (CVWD)

Dana B. Fisher, Jr. (PVID)

John B. Hamby, Chairman (IID)

David R. Pettijohn (LADWP)

Frank Ruiz (Public Member)

Jeanine Jones (DWR Designee) Jack Seiler (PVID)

Jim Madaffer, Vice Chairman (SDCWA)

David Vigil (DFW Alternate)

Board Members and Alternates Absent:

Gloria Cordero (MWD)

Gina Dockstader (IID Alternate)

David De Jesus (MWD Alternate)

Jordan Joaquin (Public Member)

Castulo Estrada (CVWD Alternate)

Christopher Hayes (DFW Designee)

Eric Heidemann (SDCWA Alternate)

Delon Kwan (LADWP Alternate)

Others Present:

James Morgutia Steven Abbott Michael Mullion **Brian Alvarez** Yuanyuan Myint Jessica Arm Jessica Neuwerth Jamie Asbury Shana Rapoport Nick Bahr David Rheinheimer **Robert Cheng Brad Robinson Dennis Davis** Alex Rodriguez JR Echard Jason Rollo Sue Fisher Eric Ruckdaschel Anna Garcia Alexi Schnell Geoff Halbrook Areeba Syed **Christpher Harris Gary Tavetian Brian Henry** Charles Vandyke Ned Hyduke Petya Vasileva Larry Lai Jerry Zimmerman Travis Moore

CALL TO ORDER

Chairman Hamby announced the presence of a quorum and called the meeting to order at 12:14 p.m.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

Chairman Hamby invited members of the audience to address the Board on items on the agenda or matters related to the Board. Hearing none, he moved on to the next item on the agenda.

WELCOME FROM PALO VERDE IRRIGATION DISTRICT

Chairman Hamby introduced Imperial Irrigation District's (IID) new General Manager, Jamie Asbury. Member Fisher welcomed everyone and thanked Palo Verde Irrigation District (PVID) staff for organizing the tour.

ADMINISTRATION

Chairman Hamby asked for a motion to approve the August 9, 2023, Board meeting minutes. Vice Chairman Madaffer moved that the minutes be approved, seconded by Member Nelson. By roll-call vote, the minutes were approved.

LOCAL AND STATE WATER SUPPLY AND OPERATIONS REPORTS

Member Jones, representing the California Department of Water Resources (DWR) reported the State experienced a great Water Year 2023 (WY-2023), noting that September is the last month of Water Year-2023. To date, statewide precipitation is 143% of average. She reported that statewide reservoir storage is 130% of average.

Member Jones reported that there will start to be a shift in the climate system as we transition from fall to winter. She added that as we approach the end of the year, we will see how those patterns start to shift to more of a zonal flow, for example, across the Pacific. She explained that the media has erroneously hyped future flooding events in California based on two or three previous El Nino years. She added that statistically speaking, the only phase of ENSO that has a predictive capability is a La Niña in Southern California. She stated that at this time we cannot say whether the winter season will be wet or dry, adding that if the winter season is dry the state has good reservoir conditions.

Member Jones reported that statewide WY-2023 precipitation was above average (between 200% and 300% of average) in several regions. She added that reservoir conditions improved greatly due to the above average precipitation, with exception to Trinity reservoir, because it is located in a region that was missed by the storm tracks.

Member Jones reported on Tropical Storm Hilary that occurred on August 20th. She noted that the Death Valley region received more than 2 inches from the storm event, which is more than it receives annually.

Mr. Larry Lai, representing the Metropolitan Water District of Southern California (MWD), reported that as of September 1st, MWD reservoir storage is 79% of capacity and the Colorado River aqueduct will be on a two-pump flow through October and a four-pump flow through the end of the year. He stated that the 2023 diversion target is projected to be 658,000 acre-feet (AF) and as of September 11th, MWD has diverted 475,081 AF. He reported that through July 2023, MWD's deliveries, which include immediate storage or replenishment to its member agencies are 81% of average. The 2023 delivery target for Desert Water Agency and Coachella Valley Water District is 245,000 AF. He added that there has been a reduction in projected deliveries to Desert Water Agency and Coachella Valley Water District due to the impact from Tropical Storm Hilary, and damage to the replenishment facility. He reported that that deliveries will be back online by the end of October.

COLORADO RIVER BASIN WATER SUPPLY AND OPERATIONS REPORT

Executive Director Harris reported that as of September 11th, the water level at Lake Powell was 3,573.75 feet with 8.80 million-acre feet (MAF) of storage, or 38% of capacity. The water level at Lake Mead was 1,066.20 feet with 8.90 MAF of storage, or 33% of capacity. The total system storage was 25.58 MAF, or 44% of capacity, which is 5.82 MAF more than system storage at this time last year. He added that the balancing release from Glen Canyon Dam will be 8.55 MAF for Calendar Year-2023.

Executive Director Harris added that due to the wet winter, the system gained an additional 280,000 AF between Glen Canyon dam and the Northerly International Boundary, which normally would have a loss of 400,000 AF. He stated that uses in the Lower Basin have been the lowest, historically, adding that uses are normally 7.5 MAF in the Lower Bain States and 1.5 MAF for Mexico, totaling 9 MAF. Executive Director Harris stated that this year, Reclamation is projecting a consumptive use for the Lower Basin States of 5.93 MAF and 1.4 MAF for Mexico. He stated that based upon the hydrology, the balancing release, and significant reductions in water use by the three Lower Basin States and Mexico, close to 1.5 MAF of storage has been added to Lake Mead.

Executive Director Harris reported that as of September 1st, for WY-2023, the forecasted unregulated inflow into Lake Powell is 13.60 MAF, or 142% of normal, noting that normally it is 9 MAF. He reported that the observed April to July inflow into Lake Powell is 10.62 MAF, or 166% of normal. Executive Director Harris stated that observed inflow into Lake Powell for August was 82% of normal and the September inflow forecast was 116% of normal. He stated that there was a good monsoon season in the Four Corners region, particularly in Arizona. Executive Director Harris stated the precipitation to date is 155% of normal.

Executive Director Harris reported on precipitation conditions during July and August. He stated that precipitation conditions in August were above average in the Upper Basin, due to summer storm activity. Executive Director Harris stated that there was also significant monsoonal activity, particularly in the region of the Mogollon Rim and the Grand Canyon region in northern Arizona and then in scattered portions along the lower Colorado River.

Executive Director Harris reported on the August 24-Month Study. He stated that the 24-Month Study, is issued by the Bureau of Reclamation (Reclamation) and is used to set the operating tier determinations for Water Year-2024 for Lakes Powell and Mead. He stated that Lake Powell's projected elevation has significantly improved from a year ago, when the Basin was desperately trying to keep Lake Powell above elevation 3,500 feet and minimum power pool of 3,490 feet. Executive Director Harris added Lake Powell's 24-Month Study projections show that the minimum probable dips down below elevation 3,575 feet, while that most of the traces, ninety percent of the traces are above this elevation. He added that the Basin did a good job in 2021 and 2022 taking various emergency actions to bolster the storage in Lake Powell, and the good hydrology also helped. Executive Director Harris stated that Lake Powell's elevation is projected to have a stable position over the next two to three years.

Executive Director Harris reported that Lake Mead elevation is benefiting from a modest balancing release from Glen Canyon Dam. He stated that historically, this is one of the smallest balancing releases that has ever been done. Executive Director Harris recounted that in April, a 9.5 MAF balancing release was anticipated, however, conservation in the Lower Basin propped up Lake Mead's elevation resulting in less water being released to balance the reservoirs. He stated that the Lower Basin States are contributing to the Lower Basin plan that was put forth in May to conserve up to 3 MAF between now and 2026. Executive Director Harris stated that Lake Mead's end of December 2024 projected elevation for all traces are within the Level 1 shortage tier. Deputy Director Neuwerth commented that that the 24-Month Study modeling includes some of the activities in the Lower Basin plan, resulting in improved projections for Lake Mead's elevation.

Chairman Hamby commented that Reclamation stated that the recent hydrology from Tropical Storm Hilary helped reduced Lower Basin demands and that Reclamation would be withholding about 300,000 AF in Lake Powell from the balancing release. Executive Director Harris concurred and noted that Lake Mead's storage is projected to increase by 1.5 MAF by the end of the CY-2023, adding that is the entire Mexican treaty burden.

Executive Director Harris reported that through the end of August, the Brock and Senator Wash regulating reservoirs captured 73,726 AF and 53,008 AF, respectively. He also reported that the excess deliveries to Mexico were 23,164 AF, compared to 2,395 AF at this time last year. Executive Director Harris noted that the excess flows to Mexico were due to local storm events. He added that when there are precipitation events and existing water orders that have already been released from Lake Mead, the water ends up going to Mexico. Executive Director Harris stated the saline drainage bypass flows to the Cienga de Santa Clara are 85,927 AF. He explained that there has been additional saline drainage flows from the both the Wellton-Mohawk Division and the Yuma Division that have been sent down south through the bypass drain. Executive Director Harris stated that he is uncertain why Reclamation is operating the bypass in this manner and stated that CRB staff will investigate further and provide an update.

COLORADO RIVER BASIN PROGRAM STAFF REPORTS

Colorado River Basin Salinity Control Forum

Staff Member Rapoport reported that the Colorado River Basin Salinity Control Forum (Forum) is in the middle of their triennial review of water quality standards. The Forum has completed a draft document for this process that is currently available for public comment. Comments are due September 15, 2023, to Don Barnett.

Staff Member Rapoport added that the Forum's Work Group has not proposed any changes to the current salinity standards for the Colorado River.

Staff Member Rapoport shared that Board staff has shared this document with our agencies and offered assistance to anyone who may need help accessing the document.

Status of the Glen Canyon Dam Adaptive Management Program

Staff Member Rapoport reported that Adaptive Management Work Group (AMWG) of the Glen Canyon Dam Adaptive Management Program (GCDAMP) met August 16 – 17 in Flagstaff, AZ.

The AMWG received a report from Reclamation regarding cavitation in the outlets Glen Canyon Dam. Reclamation reported that the cavitation likely occurred during the April High Flow Experiment (HFE). The low reservoir elevation during that experiment was about 3,525. Reclamation reported that repair plans were already underway to replace the coating in the outlet works. The cavitation will be addressed during those repairs. Repairs will take approximately two months for each outlet work, about eight months total.

Staff Member Rapoport reported that the AMWG completed a process for reviewing a budget for both the Grand Canyon Monitoring Research Center and for Reclamation for their participation in Glen Canyon Dam Adaptive Management Program. The AMWG has forwarded the proposed budget to the Secretary of the Interior for consideration.

Staff Member Rapoport reported on ongoing efforts to try and keep at bay the nonnative species that are coming through Glen Canyon Dam, particularly smallmouth bass, and prevent them from establishing populations below the dam. Staff Member Rapoport reported that there have been small mouth bass sightings, particularly in the slough, which is one of the backwater areas. The National Park Service is carrying out extensive monitoring and removal efforts.

Staff Member Rapoport reported that Reclamation has completed a plan to potentially hydrologically modify the 12-mile slough. The slough is one of the breeding grounds for warm water fish as it gets warmer dure to shallower depth and less circulation than the main channel. Reclamation has developed plans to potentially improve the flow in that area. The plan has been submitted to the National Park Service for evaluation. Staff Member Rapoport reported that the current estimate for potential implementation of modification of the slough is three years.

Staff Member Rapoport reported that Reclamation has extended the timeline for potential installation of either a net or curtain above Glen Canyon Dam to act a deterrent to fish passage. Reclamation has now estimated that it will take approximately five years to have a fish passage barrier in place.

Staff Member Rapoport reported that the AMWG approved a plan to modify the sediment accounting window in the HFE protocol. Ms. Rapoport added that HFEs are designed to push sediment downstream and to rebuild beaches in Glen Canyon and Grand Canyon. The current protocol includes two different accounting windows for those experiments, a six-month accounting window to determine if an experiment can be held in the fall and another six-month accounting window to determine if a spring HFE is likely to be successful. The proposal from the AMWG would create an annual accounting window instead of six-month accounting windows. The proposal has been generally well supported by representatives to the AMWG and is likely to

be included in the upcoming SEIS that Reclamation will be issuing to modify other aspects of the Long-Term Experimental Management Plan (LTEMP).

MEMBER AGENCY AND PUBLIC MEMBER REPORTS

San Diego County Water Authority (SDCWA)

Vice Chairman Madaffer reported that SDCWA recently earned the 2023 Utility Innovation Award. He stated that SDCWA hosted drought landscape contests for residents to showcase how they conserve water for landscape. Vice Chairman Madaffer showed pictures of two residential turf replacement projects Residents can take advantage of free resources offered by SDCWA such as landscape workshops and Water Smart Landscape Makeover Program. He stated that SDCWA continued working with MWD to provide water smart tools, including rebate, for the public. Vice Chairman Madaffer reported that SDCWA has the lowest water usage per capita of 50 gallons per day in southern California.

Vice Chairman Madaffer reported that Mr. Dan Denham was appointed as General Manager at SDCWA in August 2023. Vice Chairman Madaffer also noted that SDCWA was planning an event to celebrate the 20th anniversary for Qualification Settlement Agreement (QSA) in November 2023.

California Department of Fish and Wildlife (CDFW)

Member Vigil reported on dove hunting and stated that CDFW had a successful dove opener. Member Vigil also reported on upcoming hunting events and stated that apprentice pheasant hunts will take place in Imperial and Riverside Counties in the upcoming months.

Imperial Irrigation District (IID)

Chairman Hamby stated that tropical storm Hilary did not cause major problems in IID, but that the post-Hilary storm did. Chairman Hamby stated that about one quarter mile of the East Highline Canal, which serves about forty percent of the Imperial Valley's acreage, filled with silt. He further noted that there was significant damage to many of the lateral canals off the East Highline Canal, noting in particular damage to infrastructure around the headings of laterals O, P, Q, R, and S. Chairman Hamby stated that most of the cleanup work was finished in about two days and that some more work is ongoing.

Metropolitan Water District of Southern California (MWD)

Mr. Larry Lai, staff engineer from MWD, provided an update on behalf of MWD. Mr. Lai first noted MWD's efforts to reduce their carbon footprint as they transition to a zero emission fleet, showcasing two zero emission heavy duty trucks.

Mr. Lai then noted that MWD and member agencies worked together earlier in the month to manage a nitrification event in their distribution system. He described some of the efforts related to this event.

Mr. Lai reported on workforce development and outreach and tours. He highlighted participants from the California African American Water Education Foundation and the Inland Empire Works Pre-Apprentice Program, noting that they joined MWD staff on facility tours and had discussions on water supply and infrastructure reliability. Mr. Lai noted that these discussions were an attempt to raise awareness among students, young professionals, and elected officials about water agencies and career opportunities in the water industry.

Mr. Lai stated that MWD was honored for promoting ongoing water conservation and preservation through a Water Supplier Member of the Year Award from the Alliance for Water Efficiency.

Mr. Lai finally stated that MWD distributed a new water conservation commercial to local television stations, cable networks, and streaming services. He noted that the commercial was produced in-house by MWD staff, saving an estimated \$450,000 in production costs.

Coachella Valley Water District (CVWD)

Member Nelson reported on a video which showcased the effects of Tropical Storm Hilary. Mr. Nelson stated that significant damage was endured including loss of panels and damage to siphons. He noted that the old canal, used for storage with San Diego, was breached, and that some canal armoring was washed out. Member Nelson stated that the armory on the high sides was washed out; however, CVWD was fortunate with their main Canal.

Member Nelson noted that CVWD lost their delivery capabilities at Whitewater, CA, necessitating about eight weeks of repairs. He said CVWD worked with MWD to re-establish the Whitewater Channel to send water to nearby spreading-basins to store some of the 245,000 AF that MWD would like to put in [to groundwater].

Member Nelson reported on the I-10 freeway. He noted that it was closed for several days, Eastbound. Member Nelson reported on Indian Wells. He stated that a drop structure that was holding water was washed out, pushing much more sediment through Indian Wells. Member Nelson stated that 22,000 CFS was coming down the channel.

Member Nelson reported that several homes in Cathedral City were flooded. Member Nelson said that elderly communities needed assistance due to the storm.

Member Nelson reported that the storm also shut down the railroad for several days. He also noted that CVWD is the flood control district in the impacted areas, and that their [flood control] facilities generally functioned as intended.

Discussion took place regarding the damage from Hilary.

Member Nelson stated that the storm after Hilary caused greater damage to agriculture. He noted that several agricultural fields were wiped out and that emergency responses were required to address some agricultural water delivery structures.

Member Fisher asked a question regarding the Governor's Declaration to fund damaged infrastructure. Member Nelson stated that CVWD declared an emergency to access Federal Emergency Management Agency (FEMA) funds. Member Nelson stated that the CVWD general manager immediately declared an emergency to be able to sign cooperative agreements such as that with MWD and that they will be looking for funding and reimbursements through those types of agreements.

EXECUTIVE DIRECTOR'S REPORT

Basin States Activities

Executive Director Harris reported that the Basin states have been working to respond to Reclamation's June notice of intent to initiate scoping on the development of post-2026 operating guidelines for Lakes Powell and Mead. Comments were due in August, and Executive Director Harris noted that comment letters were available on Reclamation's Post-2026 website. Executive Director Harris reported that the comment letters addressed topics such as addressing climate change, changing hydrologic conditions, resolving the Lower Basin structural deficit, and ensuring broader stakeholder participation in the development of operational alternatives. He reported that California was a signatory to a Seven Basin States comment letter and a Lower Basin comment letter. Executive Director Harris reported that the Seven States letter was brief

and reiterated that States' intention to work collaboratively to develop an alternative for consideration in the post-2026 Environmental Impact Statement (EIS).

Executive Director Harris reported that Reclamation aims to have a draft EIS complete by December 2024. To meet this goal, proposed alternatives will need to be submitted in March to be analyzed and compared against other potential alternatives. Executive Director Harris reminded the Board that developing the 2007 Guidelines required more than three years, while the Drought Contingency Plan took four and a half years to develop.

Executive Director Harris reported that an updated draft of the Supplemental EIS for the 2007 Guidelines, covering the period through 2026, was expected to be released sometime in October or November. The Lower Basin Plan submitted to Reclamation in May is now included as the preferred alternative. Initial modeling indicates that the Lower Basin Plan stabilizes the reservoir system and protects critical elevations in Lakes Powell and Mead. Executive Director Harris noted that the Basin States would be challenged over coming months with reviewing and implementing the draft SEIS, while simultaneously developing the post-2026 Guidelines.

2024 Colorado River Annual Operating Plan

Executive Director Harris reported on the status of the 2024 Annual Operating Plan for Colorado River Reservoirs (AOP). He stated that although the Basin has experienced good hydrology and the benefits of balancing releases for both Lakes Powell and Mead, next year the projections indicate the most probable release of 7.48 MAF release from Glen Canyon Dam. He explained that without a 9 MAF release, the structural deficit will increase, which means the Lower Basin needs to continue to reduce its uses. Executive Director Harris stated that the Lower Basin Plan includes the expectation that the Lower Basin will receive a smaller Glen Canyon Dam release in 2024, ensuring that additional storage is not mined out of Lake Powell or Lake Mead. He stated that this means that the Lower Basin will need to stay vigilant in implementing projected water conservation activities for 2024.

Executive Director Harris reported that the projected operations for Lake Mead is a Level one Shortage condition. He stated that there will be reductions in deliveries to Arizona and Nevada, as well as Mexico, in compliance with Minute No. 323. Executive Director Harris explained that based on the projected uses for calendar year 2024, average annual inflows and losses to the system from Lake Mead downstream to Mexico, Lake Mead could experience a deficit of about 400,000 AF. He reported that the third consultation meeting for (AOP) is scheduled for October 25th.

Washington D.C. Updates

Executive Director Harris reported that the Environmental Protection Agency (EPA) and the Army Corps of Engineers continue to work on the rule making process to update and amend the Waters of the United States (WOTUS) Conforming Rule.

CHAIRMAN'S REPORT

Chairman Hamby reported that the first meeting of the Federal-States-Tribes workgroup was held in Phoenix in August. The meetings will be held bimonthly and in coordination with major announcements, with the goal of robustly engaging tribes in the post-2026 process. Approximately 15 tribes participated in the inaugural meeting.

Chairman Hamby reported that he had recently met with Congressman Ruiz, who represents many of California's Colorado River water districts. Chairman Hamby reported that the Congressman has been actively engaged on Colorado River issues. Vice Chairman Madaffer suggested also initiating conversations with Congressmen Mike Levin and Darrell Issa.

Finally, Chairman Hamby reported that California had signed the Lower Basin and Seven States scoping letters for the post-2026 Guidelines.

EXECUTIVE SESSION

The Board entered Executive Session at 1:05 p.m.

Pursuant to provisions of Article 9, commencing with Section 11120, of Chapter 1 of Part 1, Division 3 of Title 2 of the Government Code and Sections 12516 and 12519 of the Water Code, an Executive Session was held to discuss matters concerning interstate negotiations with representatives from other states or the federal government.

REGULAR SESSION

The Board resumed the regular session at 1:51 p.m. No action was taken.

OTHER BUSINESS

Chairman Hamby announced that the next Board meeting will be in El Centro, CA on October 11th. In addition to the meeting, there will be a QSA 20th anniversary celebration in the

evening of October 10^{th} and a dedication for the Lloyd Allen Water Conservation Operational Reservoir the morning of October 11^{th} .

ADJOURNMENT

With no further items to be brought before the Board, Chairman Hamby adjourned the meeting at 1:52 p.m.

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

A meeting of the Colorado River Board of California (Board) was held on Wednesday, October 11, 2023, at the IID Condit Auditorium, 1285 Broadway Avenue, El Centro, CA, 92243.

Board Members and Alternates Present:

Gloria Cordero (MWD) Jeanine Jones (DWR Designee)

Gina Dockstader (IID Alternate)

Jim Madaffer, Vice Chairman (SDCWA)

Dana B. Fisher, Jr. (PVID) Peter Nelson (CVWD)

John B. Hamby, Chairman (IID)

Eric Heidemann (SDCWA Alternate)

Jordan Joaquin (Public Member)

David R. Pettijohn (LADWP)

Frank Ruiz (Public Member)

David Vigil (DFW Alternate)

Board Members and Alternates Absent:

Christopher Hayes (DFW Designee)

Castulo Estrada (CVWD Alternate)

David De Jesus (MWD Alternate)

Jack Seiler (PVID) Delon Kwan (LADWP Alternate)

Others Present:

Dylan Mohamed Steven Abbott Yuanyuan Myint Brian Alvarez Nick Bahr Jessica Neuwerth Michael Pacheco **Dennis Davis** Glen Peerson JR Echard Justina Gamboa-Arce Shana Rapoport Alex Rodriguez Javier Gonzalez Shanti Rosset Christpher Harris Alexi Schnell Bill Hasencamp Tina Shields Ned Hyduke Mike Wade Eric Katz Cherie Watte Laura Lamdin Meena Westford Ronald Leimgruber Jerry Zimmerman Robin Madaffer

CALL TO ORDER

Chairman Hamby announced the presence of a quorum and called the meeting to order at 01:00 p.m.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

Chairman Hamby invited members of the audience to address the Board on items on the agenda or matters related to the Board. Hearing none, he moved on to the next item on the agenda.

WELCOME FROM IMPERIAL IRRIGATION DISTRICT

Ms. Tina Shields welcomed everyone and thanked everyone for participation in the 20th anniversary of the Quantification Settlement Agreement (QSA) on October 10, 2023.

LOCAL AND STATE WATER SUPPLY AND OPERATIONS REPORTS

Member Jones, representing the California Department of Water Resources (DWR) reported that 2023 water year temperatures within the State were cold compared to historical records. She noted that the temperatures were between two to four degrees below average, noting that there were several cold storms during the winter season. She added that the colder temperatures assisted in the management of runoff during the spring snowmelt.

Member Cordero, representing The Metropolitan Water District of Southern California (MWD), stated that the Colorado River Aqueduct (CRA) will move up to a 5-pump flow for the rest of the year. She reported on water deliveries for the first eight months of 2023, noting that deliveries were at 80% on average.

COLORADO RIVER BASIN WATER SUPPLY AND OPERATIONS REPORT

Executive Director Harris reported that October 1st was the beginning of the 2024 Water Year. He stated that as of October 2nd, the water level at Lake Powell was 3,573.55 feet with 8.78 MAF of storage, or 38% of capacity. The water level at Lake Mead was 1,065.83 feet with 8.87 MAF of storage, or 34% of capacity. The total system storage was 25.26 MAF, or 43% of capacity, which is 5.71 MAF more than system storage at this time last year.

Executive Director Harris reported that as of October 2nd, for Water Year-2023 (WY-2023) the Preliminary Observed unregulated inflow into Lake Powell was 13.42 MAF, or 140% of

normal. He reported that the observed April to July inflow into Lake Powell is 10.62 MAF, or 166% of normal. He stated that observed inflow into Lake Powell for September was 65% of normal and the October inflow forecast was 88% of normal.

Executive Director Harris reported on precipitation conditions during August and September. He stated that in August precipitation conditions were above average in the Upper Colorado Basin, particularly in the Upper Green River Basin.

Executive Director Harris reported on the August 24-Month Study. He presented a figure showing the end of month elevations for Lakes Powell and Mead. He noted that Lake Powell's elevation has increased demonstrably. He reported that Lake Mead's elevation has also increased due to the balancing release from Lake Powell and the significant water conservation activities by the Lower Basin states and Mexico. Mr. Harris stated that Reclamation's total balancing release from Glen Canyon Dam will be about 8.6 MAF. He added that consumptive use for the Lower Basin and Mexico this year is one of the lowest in decades. The combined consumptive use is projected to be about 7.3 MAF, with the Lower basin at 5.83 MAF and Mexico at 1.4 MAF. He stated that due to the conservation efforts that have been implemented and the balancing release from Glen Canyon Dam, Lake Mead will gain about 1.58 MAF.

Executive Director Harris reported that through the end of September, the Brock and Senator Wash regulating reservoirs captured 84,801 AF and 60,599 AF, respectively. He also reported that the excess deliveries to Mexico were 54,482 AF, compared to 4,030 AF at this time last year. He stated that the excess flows to Mexico were significant this time of year, noting that it has been due to above average precipitation and water orders that were made and not diverted. He added that Reclamation was not able to catch and store the additional water in the system. He stated that saline drainage bypass to the Cienga de Santa Clara is about 92,000 AF and will probably end up at around 120,000 AF by the end of the year, which is about average.

COLORADO RIVER BASIN PROGRAM STAFF REPORTS

Colorado River Basin Salinity Control Forum

Staff Member Rapoport reported that the Salinity Control Forum (Forum) Work Group (Work Group) met in September.

Staff Member Rapoport reported that one of the items discussed was the triennial review of the Colorado River water quality standards. The water quality standard applies to all seven states. The Work Group did not propose any changes to the standard this year, nor were any

public comments received during the public comment period that just closed. The Forum will be taking the item up at their upcoming meeting in November.

Staff Member Rapoport reported that the Paradox Valley Unit (PVU) experienced a couple shutdowns early in the spring, one to perform upgrades to the SCADA system and a second shutdown because there was enough water flow that the salinity concentrations were low, and injection was not needed during that time. Injection at PVU resumed operations on June 22nd and has been running consistently since that time.

Status of the Glen Canyon Dam Adaptive Management Program

Staff Member Rapoport reported that the Glen Canyon Dam Adaptive Management Program did not have a meeting this month.

Staff Member Rapoport reported that a Notice of Intent (NOI) that has been released by Reclamation that is proposed to revise the Long-Term Experimental and Management Plan (LTEMP). The primary purpose of the proposed revision is to address non-native fish that are passing through the dam. The proposed action would adjust the flows below the dam to make the waters, especially the backwater areas that tend to be warmer and more stagnant, less hospitable for breeding of those populations to try and limit population growth. The proposed flows include higher flows to flush out spawning fish as well as releasing cooler water to reduce temperatures. Reclamation is working under a short timeline with the goal of having flow options available by next spring.

Staff Member Rapoport reported that the NOI includes a second component to potentially to revise the High Flow Experiment (HFE) protocol within the LTEMP. The current protocol is based on two six-month calendar windows for how to count sediment accumulation. The purpose of HFEs is to push sediment downstream to rebuild beaches. The proposed revision would increase the length of the accounting window to a year to increase the opportunity to perform HFEs.

Staff Member Rapoport reported that the NOI is open for public comment. Comments are due November 3rd. There are also two public meetings scheduled. Information on the online workshops is included in CRB's monthly report.

MEMBER AGENCY AND PUBLIC MEMBER REPORTS

California Department of Fish and Wildlife (CDFW)

Member Vigil reported on upcoming hunting events. He stated that CDFW is getting ready for the Waterfowl hunting season. Member Vigil noted that Waterfowl hunts will take place at the Palo Verde Ecological Reserve beginning October 23, 2023.

California Department of Water Resources (DWR)

Member Jones reported that DWR issued \$187 million in Sustainable Groundwater Management Act (SGMA) related grants for 103 projects in 32 groundwater basins. She added that next year will be the 10th anniversary of the passing of SGMA. She stated that the first set of plans for critically over drafted basins have completely gone through the review process, with some having been referred to the State Water Board for follow up for noncompliance. She reported that as we transition from the initial stage of plan formation and move on to implementation, DWR will begin to see changes in the next decade or so in groundwater management areas, especially in the San Joaquin Valley. She added that DWR does not know the impact of the wet water year on groundwater storage because it takes time for groundwater to recharge, adding more will be known by next spring. She stated that at the end of WY-2023 statewide reservoir storage wrapped up at 129% of average, surpassing Water Years 2017 and 2019.

San Diego County Water Authority (SDCWA)

Vice Chairman Madaffer reported that SDCWA climate change efforts have been popular. A slide was presented.

Vice Chairman Madaffer reported that the SDCWA recently named two new people into leadership positions at the Water Authority. Tish Berge is the new Deputy General Manager and Kelley Gage is the Assistant General Manager.

Vice Chairman Maddaffer added that one of the things that the SDCWA has done with respect to transparency on greenhouse gas emissions involve a number of efforts at the pump plants.

Vice Chairman Madaffer added that the SDCWA will hold a QSA celebration in November and that invitations will arrive shortly if they have not already.

Metropolitan Water District of Southern California (MWD)

Member Cordero expressed gratitude for being able to visit Imperial Irrigation District (IID). She noted the important connections between agriculture in the Imperial Valley and her home city of Long Beach, noting in particular that agriculture products are often shipped through the ports of Los Angeles and Long Beach.

Member Cordero discussed two projects approved by MWD's board in September to help address last year's drought and inequities. She stated that the first is new pump stations along the supply of the feeder to serve the western part of the service area in the San Fernando Valley near Ventura County. She thanked MWD Director Glen Peterson for his leadership on that project. She stated that the second project is a new intertie between the two major pipelines that will pump stored water uphill to the Rialto pipeline and allow water to be delivered from Diamond Valley Lake to the San Gabriel Valley and the Inland Empire.

Member Cordero then discussed MWD's efforts working for a couple of years with the Newsom administration related to the voluntary agreements as part of the Bay Delta Water Quality Plan. She noted that the State Water Board has kicked off the process and is seeking public input to finalize a plan in the next few months. She noted that this is important to MWD because it will set water quality and flow requirements in the Delta and many of its tributaries. The plan could result in MWD requiring water suppliers and other water users to cut back on how much they divert for people and for farms.

Member Cordero noted that MWD General Manager, Adel Hagekhalil, hired a Chief of Staff, Moshin Mortada, on October 1st, described his background and indicated CRB members may see him occasionally.

Lastly, Member Cordero noted that this is Water Professional's Week in California, as designated by the state legislature, and noted that MWD has had several related activities.

Palo Verde Irrigation District (PVID)

Mr. JR Echard from PVID reported on damage from a severe storm on September 1st that resulted in 2 ½ inches of rain in the south end of Palo Verde. He noted that the storm caused severe damage to PVID's canal system, including a drain and several connected siphons. He noted that PVID has been able to repair four of the five siphons. Mr. Echard also noted the installation of a new telemetry system. He indicated that they would be working on repairing the drain and related storm damage through October and possibly November.

Mr. Echard reported that on October 26th PVID would be celebrating its 100th year as the Palo Verde Irrigation District and invited everyone present to join.

Coachella Valley Water District (CVWD)

Member Nelson reported on progress related to their Whitewater replenishment facilities damaged by tropical storm Hilary. He noted that repairs with the assistance of MWD's staff and equipment are now complete. He also noted that the CVWD had anticipated to have 400 cubic feet per second (cfs) restored at Whitewater, but only had about 50-100 cfs due to additional needed repairs in an upstream canal and the Colorado River Aqueduct. Mr. Nelson indicated that the related repairs were almost complete and that they would be fully back online soon for groundwater replenishment with exchange water and an advanced delivery.

EXECUTIVE DIRECTOR'S REPORT

Basin States Activities

Executive Director Harris reported that Reclamation would be releasing the updated draft Supplemental Environmental Impact Statement (SEIS) for the 2007 Guidelines sometime in the last week of October. There will be a 45-day public comment period. Executive Director Harris noted that the SEIS would analyze the Lower Basin plan submitted to Reclamation in May, which includes commitments the three Lower Basin states to create an additional 3 MAF of conserved water between 2023 and 2026. With the reductions already laid out in the 2007 Guidelines, Executive Director Harris reported that an additional estimated 6 MAF would bolster Lake Mead by the expiration of the Guidelines in 2026. Executive Director Harris reported that Reclamation expected to finalize the SEIS in spring or summer of 2024.

Executive Director Harris reported that Reclamation and the Basin States have begun to pivot to development of the post-2026 Guidelines. The scoping comment period for the post-2026 Environmental Impact Statement (EIS) recently closed. Reclamation is working on preparing a scoping report summarizing the input received from the public.

Executive Director Harris reported that a Federal-States-Tribes workgroup has also been established, with the goal of establishing more effective and efficient communication between tribal nations, the Basin States, and the United States. The second meeting of this group was held earlier in October.

Executive Director Harris also reported that Reclamation kicked off a stakeholder technical modeling group about six months ago to look at all the potential modeling tools and decision support systems that may be used in evaluating the alternatives in the post-2026 EIS. Executive Director Harris noted that a web-tool was under development, which would be available to the public and allow for creation and comparison of different operational strategies for Lakes Powell and Mead.

Washington D.C. Updates

Executive Director Harris reported that Deputy Secretary Beaudreau from the United States Department of the Interior has resigned and will be leaving at the end of October. Executive Director Harris noted that Deputy Secretary Beaudreau was very helpful with the SEIS process and putting together the May 2023 Lower Basin Interim Period Plan.

CHAIRMAN'S REPORT

Chairman Hamby reported that Member Joaquin and Member Cordero both participated in the most recent Federal-States-Tribes meeting. Chairman Hamby remarked that the meetings have been productive and that they were a welcome forum for closer coordination.

EXECUTIVE SESSION

The Board entered Executive Session at 1:38 p.m.

Pursuant to provisions of Article 9, commencing with Section 11120, of Chapter 1 of Part 1, Division 3 of Title 2 of the Government Code and Sections 12516 and 12519 of the Water Code, an Executive Session was held to discuss matters concerning interstate negotiations with representatives from other states or the federal government.

REGULAR SESSION

The Board resumed the regular session at 2:40 p.m. No action was taken.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Hamby adjourned the meeting at 2:44 p.m.

2024 Colorado River Board Meetings

Date	Location	Time
January 10	Cancelled	10:00 a.m.
February 13-14	Winterhaven	10:00 a.m.
March 13	Palm Desert	10:00 a.m.
April 10	Hemet	10:00 a.m.
May 15	Palm Desert	10:00 a.m.
June 12	San Diego	10:00 a.m.
July 10	San Diego	10:00 a.m.
August 14	San Diego	10:00 a.m.
September 11	San Diego	10:00 a.m.
October 9	Palm Desert	10:00 a.m.
November 13	Palm Desert	10:00 a.m.
December 11	Las Vegas, Nevada	10:00 a.m.

LOWER COLORADO WATER SUPPLY REPORT

River Operations Bureau of Reclamation

Questions:	BCOOWaterops@usbr.gov	<u> </u>
(702) 293-	8373	

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

http://www.usbr.gov/ic/region/g4000/weekiy.pui				
		Content	Elev. (Feet	7-Day
	PERCENT	1000	above mean	Release
CURRENT STORAGE	FULL	ac-ft (kaf)	sea level)	(CFS)
LAKE POWELL	37%	8,606	3,571.16	8,900
* LAKE MEAD	34%	8,818	1,065.14	6,700
LAKE MOHAVE	89%	1,614	639.86	5,400
LAKE HAVASU	91%	563	447.09	4,700
TOTAL SYSTEM CONTENTS **	43%	24,884		
As of 12/3/2023		,		
SYSTEM CONTENT LAST YEAR	33%	19,154		
*Percent based on capacity of 26,120 kaf or		•		
**Total System Contents includes Upper & Lo			ke Mead exclusive f	lood control space.
Salt/Verde System	81%	1,856		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	14%	138	1,124.64	20
Forecasted Water Use for Calendar Year	2023 (as of 12,	/4/2023) (values :	in kaf)	
NEVADA			188	
SOUTHERN NEVADA WATER SYSTEM				182
OTHERS				6
CALIFORNIA			3,694	
METROPOLITAN WATER DISTRICT OF CA	ALIFORNIA		-,	674
IRRIGATION DISTRICTS				3,004
OTHERS				15
V				
ARIZONA			1,927	
CENTRAL ARIZONA PROJECT			, -	837
OTHERS				1,090
TOTAL LOWER BASIN USE				5,809
DELIVERY TO MEXICO - 2023 (Mexico S	Scheduled Delivery	+ Preliminary Yearly	y Excess ¹)	1,438
OTHER SIGNIFICANT INFORMATION				
UNREGULATED INFLOW INTO LAKE POWELL -	DECEMBER FINAL		•	
		MILLIO	N ACRE-FEET	% of Normal
FORECASTED WATER YEAR 2024			7.619	79%
FORECASTED APRIL-JULY 2024			4.800	75%
NOVEMBER OBSERVED INFLOW			0.380	91%
DECEMBER INFLOW FORECAST			0.315	98%
		Upper Colora	do Basin Salt	/Verde Basin
WATER YEAR 2024 PRECIP TO DATE ²		88% (4	.8")	50% (1.8")
CURRENT BASIN SNOWPACK ²		88% (3	1"\	83% (0.5")

Delivery to Mexico forecasted yearly excess calculated using year-to-date observed and projected excess.

 $^{^{2}}$ Preciptiation and snowpack values may vary significantly from week-to-week this early in the water year.

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

WATER USE SUMMARY	Use To Date <u>CY 2023</u>	Forecast Use <u>CY 2023</u>	Approved Use CY 2023	Excess to Approval CY 2023
Arizona	1,850,496	1,926,622	1,953,163	(26,541)
California	3,515,331	3,693,721	3,856,455	(162,734)
Nevada	181,820	188,173	188,173	0
States Total ³	5,547,647	5,808,516	5,997,791	(189,275)
Total Deliveries to Mexico ⁴	1,308,422	1,382,698	1,382,698	
Creation of Mexico's Recoverable Water Savings ⁵	30,000	30,000	30,000	
Creation of Mexico's Water Reserve ⁶	17,302	17,302	17,302	
Total to Mexico in Satisfaction of Treaty Requirements ⁷	1,355,724	1,430,000	1,430,000	
T. M. C. T. C. T. C. S.				
To Mexico in Excess of Treaty ⁸	54,519	55,755	28,963	
Water Bypassed Pursuant to IBWC Minute 242 ⁹	108,526	116,313	117,192	
Total Lower Basin & Mexico 10	7.040.444	7 262 202	7.526.644	
lotal Lower Basin & Mexico	7,019,114	7,363,282	7,526,644	

¹ Incorporates 80 daily reporting stations which may be revised after provisional data reports are distributed by the USGS. Use to date has been updated through September for users reporting monthly and estimated for users reporting annually.

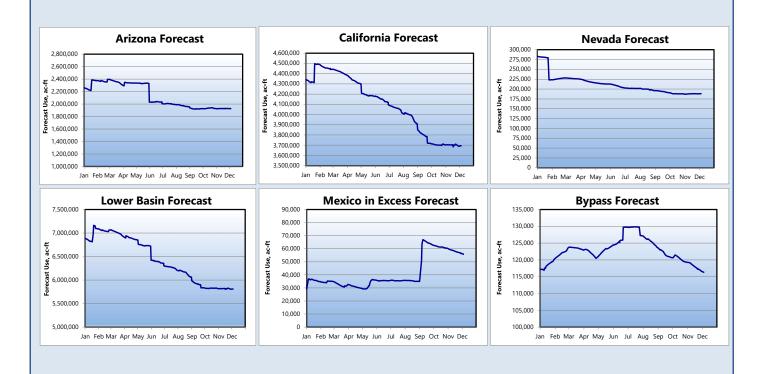
Water deferred by Mexico pursuant to Section IV of IBWC Minute 323 and the Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin dated July 11, 2019. (Mexico's required Binational Water Scarcity Contingency Plan Contribution).

Water deferred by Mexico pursuant to Section V of IBWC Minute 323.

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 Mexico's scheduled deliveries incoporate 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.

"To Mexico in Excess of Treaty" forecast is based on the 5-year average for the period 2017-2021.

Includes States Total, Total Deliveries to Mexico, To Mexico in Excess of Treaty, and Water Bypassed Pursuant IBWC Minute 242.



² These values reflect adjusted apportionments. See Adjusted Apportionment calculation on each state page.

³ 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.

⁴ 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.

[&]quot;Water Bypassed Pursuant to IBWC Minute 242" forecast is based on the average for the period 1990-2021.



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 <u>Arizona Schedules and Approvals</u> NOTE:

Diversions and uses that are pending approval are noted in red
italies

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.

	Use	Forecast	Estimated	Excess to Estimated	Diversion	Forecast	Approved	Excess to Approved
	To Date	Use	Use	Use	To Date	Diversion	Diversion	Diversion
WATER USER	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023
TV Marble Canyon, AZ LLC	10	10	10		14	15	15	0
Lake Mead NRA, AZ - Diversions from Lake Mead	55	57	68		55	57	68	-11
Lake Mead NRA, AZ - Diversions from Lake Mohave	226	242	248		226	242	248	-6
McAlister Family Trust	7	7	7		10	10	10	0
Bureau of Reclamation - Davis Dam Project	2	2	2		10	10	10	0
Bullhead City	6,788	7,449	8,699		10,321	11,369	13,730	-2,361
Mohave Water Conservation District	820	917	917		1,223	1,367	1,367	0
Mohave Valley I.D.D. ¹	8,547	9,056	11,662		15,826	16,769	21,597	-4,828
Fort Mojave Indian Reservation, AZ	34,804	36,511	44,280		64,452	67,613	82,000	-14,387
Golden Shores Water Conservation District	276	287	287		415	432	432	0
Havasu National Wildlife Refuge	1,825	1,894	3,564		15,220	16,024	41,835	-25,811
EPCOR Water Arizona, Inc CSA No. 1	543	587	589		836	906	907	-1
Crystal Beach Water Conservation District	70	73	73		108	112	112	0
Lake Havasu City	8,109	8,669	9,052		13,078	13,981	14,600	-619
Arizona State Parks (Windsor Beach)	11	11	11		16	17	17	0
Central Arizona Water Conservation District ²	795,349	836,560			795,349	836,560		
Hillcrest Water Company	20	21	21		31	32	32	0
Springs Del Sol Domestic Water Improvement District	2	2	2		3	3	3	0
Frontier Communications West Coast	1	1	1		1	1	1	0
EPCOR Water Arizona, Inc CSA No. 2 (formerly Brooke Water, LLC)	268	290	327		398	431	489	-58
Town of Parker	239	255	418		619	670	912	-242
Colorado River Indian Reservation, AZ	334,599	342,385	360,641		509,374	536,775	662,402	-125,627
GM Gabrych Family	0	0	0		0	0	0	0
Ehrenberg Improvement District	276	291	291		430	454	454	0
B&F Investment	8	9	8		9	10	11	-1
North Baja Pipeline	192	200	200		296	308	308	0
Arizona State Land Department - Domestic	33	36	40		50	55	61	-6
Cibola Valley I.D.D.	3,214	3,432	3,616		4,494	4,798	5,055	-257
Red River Land Co.	219	219	214		306	306	300	2.607
Hopi Tribe	423	423	3,061		591	591	4,278	-3,687
GSC Farms, LLC	2.020	12	28		10	15	35	-20
Arizona Game & Fish	2,028	2,028	2,028		2,838	2,838	2,838	0
Cibola Island	678	705	705	6.452	948	986	986	-
Cibola National Wildlife Refuge Western Water, LLC	7,658 93	7,812 94	14,264 379	-6,452 	12,349 129	12,597 131	23,005 530	-10,408 -399
	106	108	154		149	153	216	-63
Cibola Sportsmans Club Bishop Family Trust	147	152	300		205	213	420	-207
Cathcarts	10	10	10		13	13	13	0
Imperial National Wildlife Refuge	3,546	3,828	3,799	29	5,717	6,171	6,128	43
BLM - Leased by L. Pratt	56	58	58		86	89	89	0
BLM Permittees (Parker Dam to Imperial Dam)	1,222	1,271	1,271	0	1,880	1,956	1,956	
Martinez Lake Cabin Sites	6	7	7		10	11	11	0
Fisher's Landing Water and Sewer, LLC	7	7	7		11	11	11	0
Shepard Water Company	17	18	18		27	28	28	0
U.S. Army Yuma Proving Grounds	401	428	486		401	428	486	-58
JRJ Partners, LLC	510	566	666		785	874	1,025	-151
Cha Cha, LLC	1,079	1,149	1,365		1,659	1,766	2,100	-334
Beattie Farms Southwest	601	647	722		925	994	1,110	-116
Gila Monster Farms	4,110	4,335	4,833		7,426	7,878	8,500	-622
Wellton-Mohawk I.D.D.	250,474	256,133	278,000	-21,867	355,998	374,695	424,350	-49,655
BLM Permittees (Below Imperial Dam)	106	110	110	0	162	169	169	
City of Yuma	12,341	13,368	15,151	-1,783	20,758	22,844	27,500	-4,656
U.S. Marine Corps Air Station Yuma	1,005	1,066	1,265		1,005	1,066	1,265	-199
Union Pacific Railroad	28	29	29		46	48	48	0

				Excess to				Excess to
	Use	Forecast	Estimated	Estimated	Diversion	Forecast	Approved	Approved
	To Date	Use	Use	Use	To Date	Diversion	Diversion	Diversion
WATER USER	CY 2023							
Desert Lawn Memorial	26	27	27		37	38	38	0
North Gila Valley Irrigation District	8,459	8,518	9,486		37,681	39,849	43,500	-3,651
Yuma Irrigation District	31,327	32,919	38,958		58,496	62,290	73,100	-10,810
Yuma Mesa I.D.D.	77,703	78,073	104,430		155,794	166,007	230,252	-64,245
Unit "B" I.D.D.	15,308	14,941	13,421		24,478	25,201	28,300	-3,099
Arizona State Land Department - Agriculture	3,662	3,912	4,295		5,738	6,122	6,607	-485
Ott Family	259	269	269		398	414	414	0
Ogram Boys' Enterprises	572	595	595		880	916	916	0
Fort Yuma Indian Reservation	3,002	3,123	3,123		4,618	4,804	4,804	0
BLM - Leased by M. Lee	139	145	145		214	223	223	0
Armon Curtis	122	127	127		187	195	195	0
Yuma County Water Users' Association	224,377	237,641	277,259		317,006	336,877	367,400	-30,523
R. Griffin	29	30	30		44	46	46	0
Power	71	74	74		110	114	114	0
Cocopah Indian Tribe (PPR No. 7)	177	184	184		272	283	283	0
Griffin Ranches (PPR No. 7)	71	74	74		110	114	114	0
Milton Phillips (PPR No. 7)	42	44	44		64	67	67	0
Griffin Family Ltd. Partnership (PPR No. 7)	16	17	17		25	26	26	0
Cocopah Indian Reservation	829	888	1,820		1,017	1,107	2,812	-1,705
Bureau of Reclamation - Yuma Area Office	198	206	206		198	206	206	0
Arizona Public Service Company	0	0	0		0	0	0	0
Gary Pasquinelli	178	193	209		273	295	321	-26
Total Arizona	1,850,496	1,926,622	2,067,594		2,455,717	2,591,898	2,952,698	
Central Arizona Project (CAP)	795,349	836,560				836,560		
All Others	1,055,147	1,090,062	1,229,804			1,755,338	2,114,908	
Yuma Mesa Division, Gila Project	117,489	119,510	152,874			268,146	346,852	
Total 242 Well Field Pumping ³	33,754	35,964	47,183					

ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Estimated Allowable Use for CAP

Arizona Basic Apportionment	2,800,000
Reduction for Tier 2a Shortage ⁴	(400,000)
Reduction for Arizona DCP Contributions ⁵	(192,000)
System Conservation Water - Pilot System Conservation Program ⁶	(500)
System Conservation Water - GM Gabrych Family 7,8	(3,240)
System Conservation Water - Fort McDowell Yavapai Nation (FMYN) 7,9	(13,933)
System Conservation Water - Gila River Indian Community (GRIC) 7,10	(91,319)
System Conservation Water - Cathcarts 7,11	(57)
System Conservation Water - Mohave Valley I.D.D. (MVIDD) 7,12	(12,819)
System Conservation Water - San Carlos Apache Tribe (SCAT) 7 13	(23,804)
System Conservation Water - CAP Subcontractors	(141,400)
System Conservation Water - Cibola Valley I.D.D. (CVIDD)	(1,682)
System Conservation Water - Reclamation (Estimated)	(4,835)
Delivery of ICS (CAWCD)	38,752
Total State Adjusted Apportionment	1,953,163
Excess to Total State Adjusted Apportionment	(26,541)

¹Approved/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.

863,135

² Forecast Use incorporates CAWCD's operational schedule dated August 23, 2023. Amount shown includes the diversion of up to 2,033 AF to be delivered via the CAP to the Town of Queek Creek pursuant to Reclamation Wheeling Contract No. 20-XX-30-W0691 and the diversion of 72,000 AF of Arizona third priority Colorado River water to be delivered via the CAP to fulfill water rights settlements pursuant to the Stipulated Judgment and the Stipulation for Judgment entered on November 21, 2007.

³ 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.

⁴ 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 Colorodo River basic apportionment.

⁵ In accordance with Section III.B.1.a of Lower Basin Drought Contingency Operations (LBOps), 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 LBOps, 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 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.

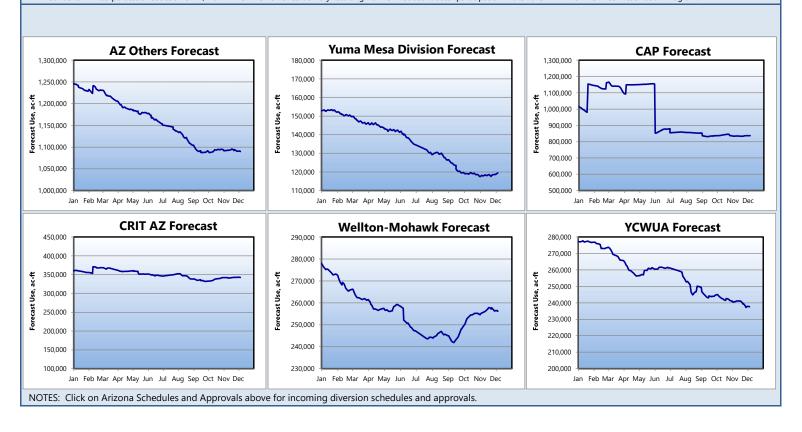
⁶ The estimated amount of System Conservation Water that will be created by the City of Bullhead City pursuant to System Conservation Implementation Agreement (SCIA) No. 15-XX-30-W0587, as amended. This System Conservation Water will remain in Lake Mead to benefit system storage.

Footnotes continued from previous page.

⁷ In accordance with the applicable conservation agreements, Section 3.b of the *Lower Basin Drought Contingency Plan Agreement* dated May 20, 2019 (LB DCP Agreement), and Section II.3.e of the *Agreement Regarding LowercBasin Drought Contingency Plan Obligations*, this System Conservation Water will remain in Colorado River reservoirs in the Lower Basin to benefit system storage. The Bureau of Reclamation intends to apply this water towards the Secretary of the Interior's commitment to create or conserve 100,000 AF per annum or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the Lower Basin.

⁸ System Conservation Water being created pursuant to SCIA No. 23-XX-30-W-0774.

¹⁷ Amount shown incorporates a reduction of 41,776 AF in CAWCD's EC ICS delivery resulting from CAP Subcontractor participation in the 2023 ADWR-CAWCD ICS Preservation Program.



 $^{^{\}rm 9}\,{\rm System}$ Conservation Water being created by FMYN pursuant to SCIA No. 23-XX-30-W0750.

 $^{^{\}rm 10}\,\text{System}$ Conservation Water being created by GRIC pursuant to SCIA No. 23-XX-30-W0760.

 $^{^{\}rm 11}$ System Conservation Water being created by Cathcarts pursuant to SCIA No. 23-XX-30-W0776.

 $^{^{\}rm 12}$ System Conservation Water being created by MVIDD pursuant to SCIA No. 23-XX-30-W0770.

¹³ System Conservation Water being created by SCAT pursuant to SCIA No. 23-XX-30-W0765, as amended.

¹⁴ System Conservation Water being created by certain CAP Subcontractors pursuant to executed SCIAs.

 $^{^{\}rm 15}$ System Conservation Water being created by CVIDD pursuant to SCIA No. 23-XX-30-W0771.

¹⁶ 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.



LOWER COLORADO BASIN REGION CY 2023

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

NOTE:

• Diversions and uses that are pending approval are noted in red

 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

 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

				Excess to				Excess to
	Use	Forecast	Estimated	Estimated	Diversion	Forecast	Approved	Approved
	To Date	Use	Use	Use	To Date	Diversion	Diversion	Diversion
WATER USER	CY 2023							
Fort Mojave Indian Reservation, CA	6,398	6,553	8,994		11,891	12,180	16,720	-4,540
City of Needles (includes LCWSP use)	1,076	1,157	1,605	-448	1,838	1,952	2,261	-309
PPR No. 30 (Stephenson)	18	19	19		33	34	34	0
PPR No. 38 (Andrade)	24	25	25		43	45	45	
PPR No. 40 (Cooper)	6	6	6		10	10	10	
Chemehuevi Indian Reservation	176	183	183		10,900	11,340	11,340	0
The Metropolitan Water District of Southern California 1	610,311	674,206			612,784	676,913		
Colorado River Indian Reservation, CA	4210	4,380	4,380		6,977	7,258	7,258	0
Palo Verde Irrigation District	286,810	285,582	423,836		663,367	690,464	862,000	-171,536
PPR No. 31 (Mendivil)	3	3	3		6	6	6	0
Yuma Project Resesrvation Division	34,625	36,207	46,057		70,855	75,400	93,850	-18,450
Yuma Project Reservation Division - Bard Unit					31,968	34,226	46,452	-12,226
Yuma Project Reservation Division - Indian Unit					38,887	41,174	47,398	-6,224
Fort Yuma Indian Reservation - Ranch 5 (Surface Delivery)	976	1,024	1,194		1,765	1,851	2,160	-309
Fort Yuma Indian Reservation - Other Ranches (Pumpers)	1,093	1,137	1,137		1,978	2,058	2,058	0
Yuma Island Pumpers	1,406	1,463	1,463		2,544	2,647	2,647	0
Imperial Irrigation District	2,297,021	2,390,705	2,617,800	-227,095	2,304,093	2,406,974	2,767,270	
Coachella Valley Water District	270,616	290,487	354,000	-63,513	282,688	304,663	375,987	
Other LCWSP Contractors	506	526	526		787	819	819	0
City of Winterhaven	56	58	58		78	81	81	0
Total California	3.515.331	3.693.721	4.143.158		3.972.637	4.194.695	4.829.051	

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

California Basic Apportionment	4,400,000
System Conservation Water - Pilot System Conservation Program ²	(145)
System Conservation Water - CVWD ^{3,4}	(35,000)
System Conservation Water - PVID Fallowing Program 3,5	(58,400)
Creation of Extraordinary Conservation ICS - MWD ⁶	(450,000)
Total State Adjusted Apportionment	3,856,455
Excess to Total State Adjusted Apportionment	(162,734)

Estimated Allowable Use for MWD 1.286.940

Forecast Use is based on MWD's operational projected diversion of 0.750 maf for August's 24MS.

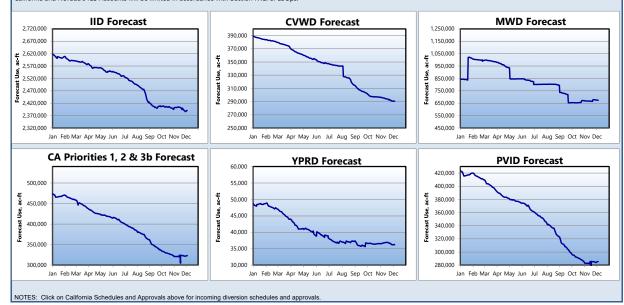
System Conservation Water to be conserved by the City of Needles pursuant to System Conservation Implementation Agreement No. 15-XX-30-W0596, executed under the Pilot System Conserv Program. This water will remain in Lake Mead to benefit system storage.

In accordance with the applicable system conservation agreements and Section 3.b of the Lower Basin Drought Contingeny Plan Agreement , the Bureau of Reclamation intends to apply all or a p of this water towards the Secretary of the Interior's commitment to create or conserve 100,000 AF per annum or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the Lower Basin.

The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0764.

The estimated amount of System Conservation Water that will be created pursuant to Funding Agreement No. 21-XX-30-W0714.

MWD has an approved ICS Plan for the creation of up to 450,000 AF of Extraordinary Conservation (EC) ICS in 2023. The actual amount of EC ICS created by MWD 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.





LOWER COLORADO BASIN REGION CY 2023

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**

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 colum 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.

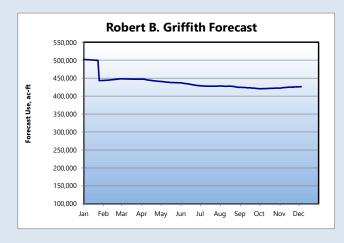
				Excess to				Excess to
	Use	Forecast	Estimated	Estimated	Diversion	Forecast	Approved	Approved
	To Date	Use	Use	Use	To Date	Diversion	Diversion	Diversion
WATER USER	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023	CY 2023
Robert B. Griffith Water Project (SNWS)	402,194	426,298			402,194	426,298		
Lake Mead NRA, NV - Diversions from Lake Mead	498	618	1,500		498	618	1,500	-882
Lake Mead NRA, NV - Diversions from Lake Mohave	180	213	500		180	213	500	-287
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.	819	879	928		819	879	928	-49
Boulder Canyon Project	170	177	177		288	300	300	0
Big Bend Water District	1,819	2,086	4,688		3,936	4,566	10,000	-5,434
Fort Mojave Indian Tribe	2,468	2,521	4,624		3,684	3,764	6,900	-3,136
Las Vegas Wash Return Flows	-226,328	-244,619	-231,289					
1								
Total Nevada ¹	181,820	188,173	223,000	0	411,599	436,638	462,000	-9,788
Southern Nevada Water System (SNWS)	175,866	181,679				426,298		
All Others	5,954	6,494				10,340		
Nevada Uses Above Hoover	177,533	183,566				428,308		
Nevada Uses Below Hoover	4,287	4,607				8,330		

Tributary Conservation (TC) Intentionally Created Surplus (ICS)

Southern Nevada Water Authority (SNWA) Creation of TC ICS (Approved) ²	44,000
NEVADA ADJUSTED APPORTIONMENT CALCULATION	
Nevada Basic Apportionment	300,000
Reduction for Tier 2 Shortage ³	(17,000)
Creation of Extraordinary Conservation ICS - SNWA (Estimated) ⁴	(94,827)
Total State Adjusted Apportionment	188,173
Excess to Total State Adjusted Apportionment	0

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. 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.

⁴ 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.





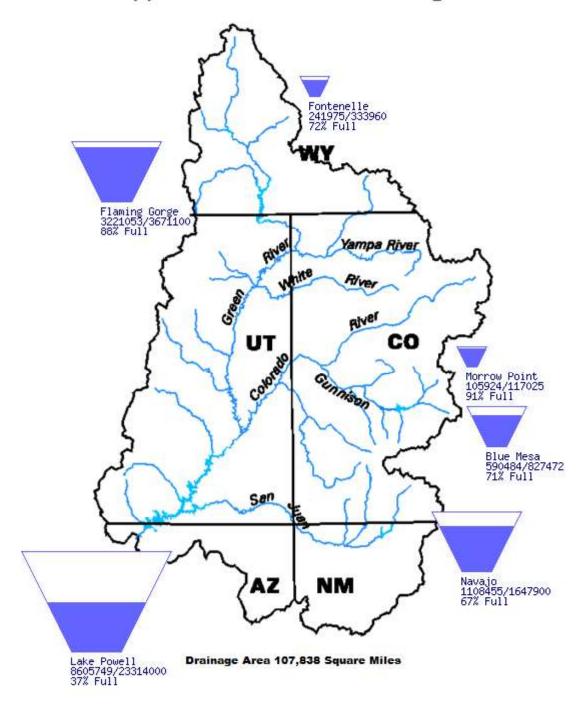
an accordance with Section XI.G.2.D.1.B of the 2007 Interim Guidelines, a Tier 2 Shortage Condition will govern the operation of Lake Mead and the lower Colorado River in 2023, resulting in a 17,000 AF reduction to the state of Nevada's Colorodo River basic apportionment.

Upper Colorado Region Water Resources Group

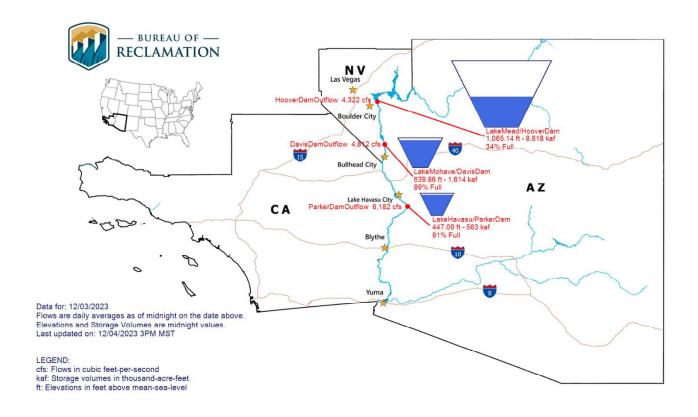
River Basin Tea-Cup Diagrams

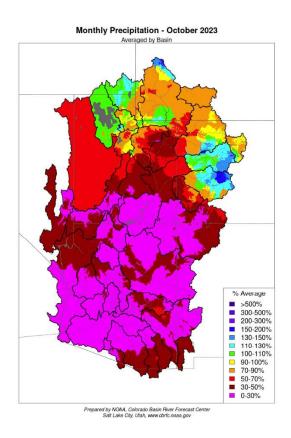
Data Current as of: 12/03/2023

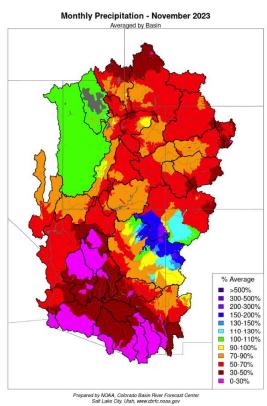
Upper Colorado River Drainage Basin

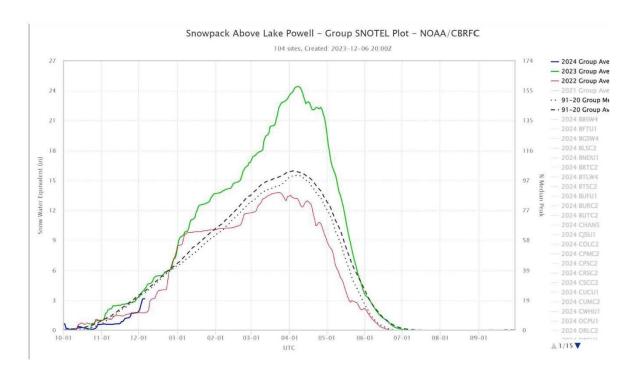


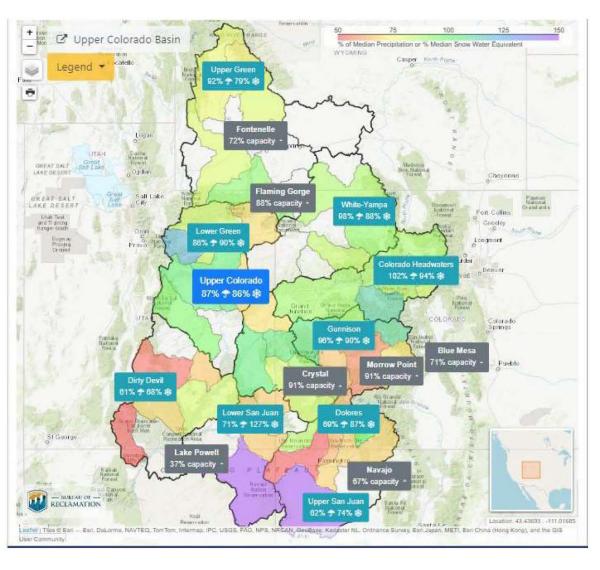
Lower Colorado River Teacup Diagram











U.S. Drought Monitor West

November 28, 2023

(Released Thursday, Nov. 30, 2023) Valid 7 a.m. EST

Drought Conditions (Percent Area)

A	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	54.87	45.13	27.59	16.29	5.22	0.66
Last Week 11-21-2023	56.78	43.22	29.36	16.14	5.62	0.73
3 Month's Ago 08-29-2023	54.48	45.52	30.75	13.31	2.92	0.00
Start of Calendar Year 01-03-2023	12.08	87.92	62.42	38.84	12.41	0.27
Start of Water Year 09-26-2023	55.99	44.01	31.24	17.70	6.09	0.70
One Year Ago 11-29-2022	6.58	93.42	68.74	44.88	17.62	2.02

Intensity:

None D2 Severe Drought

D0 Abnormally Dry D3 Extreme Drought

D1 Moderate 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:

David Simeral Western Regional Climate Center



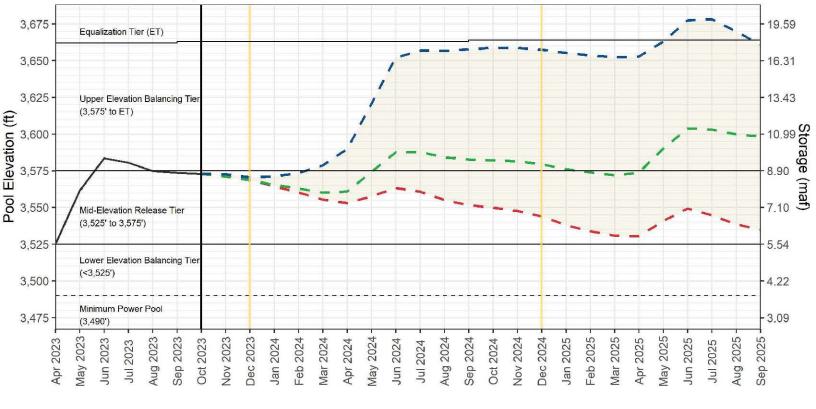






droughtmonitor.unl.edu

Lake Powell End-of-Month Elevations Projections from October and November 2023 24-Month Study Inflow Scenarios

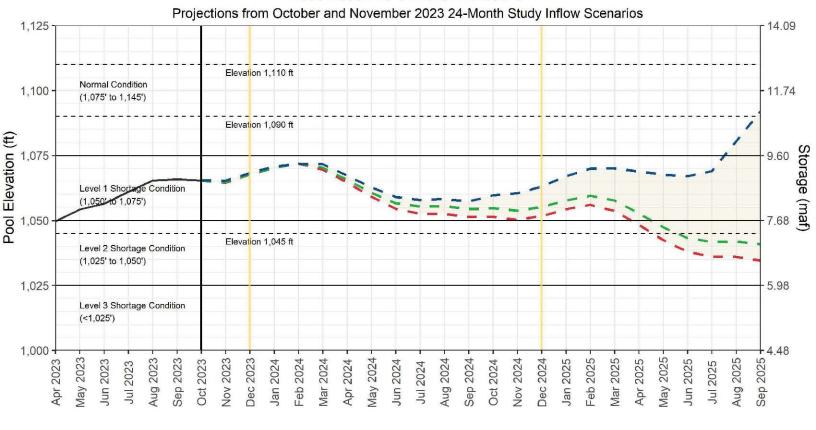


- Historical Elevations
- October 2023 Probable Maximum Inflow with a Lake Powell release of 7.48 maf in WY 2024 and 11.57 maf in WY 2025
- November 2023 Most Probable Inflow with a Lake Powell release of 7.48 maf in WY 2024 and 7.48 maf in WY 2025
- November 2023 DROA Probable Minimum Inflow with a Lake Powell release of 7.48 maf in WY 2024 and 7.48 maf in WY 2025

— BUREAU OF — RECLAMATION

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

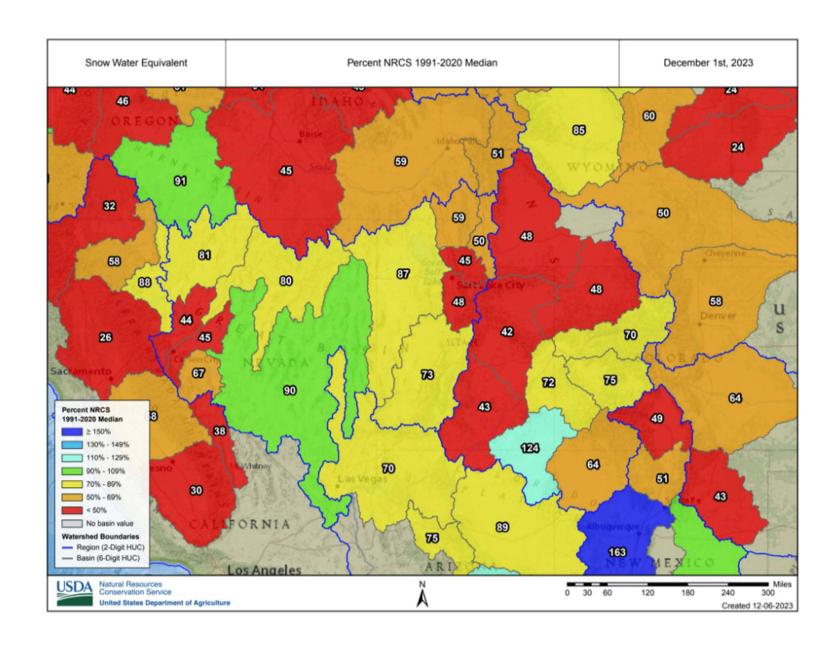
Lake Mead End-of-Month Elevations

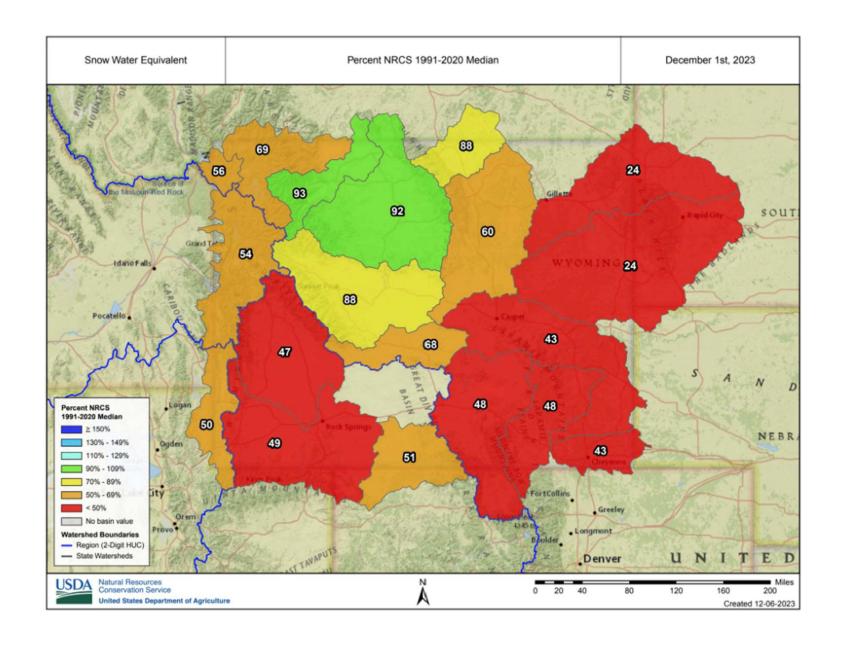


- Historical Elevations
- October 2023 Probable Maximum Inflow with a Lake Powell release of 7.48 maf in WY 2024 and 11.57 maf in WY 2025
- November 2023 Most Probable Inflow with a Lake Powell release of 7.48 maf in WY 2024 and 7.48 maf in WY 2025
- November 2023 DROA Probable Minimum Inflow with a Lake Powell release of 7.48 maf in WY 2024 and 7.48 maf in WY 2025

— BUREAU OF — RECLAMATION

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





Precipitation Statistics (period of record: 1981-current)

Statewide as of 12/04/2023

Water Year to Date: 2.34"

% of Average: **53**%

Precipitation % of average for

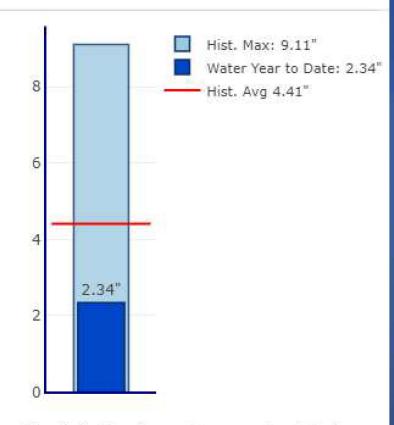
full water year through September 30th: **10**%

Historical Record to Date:

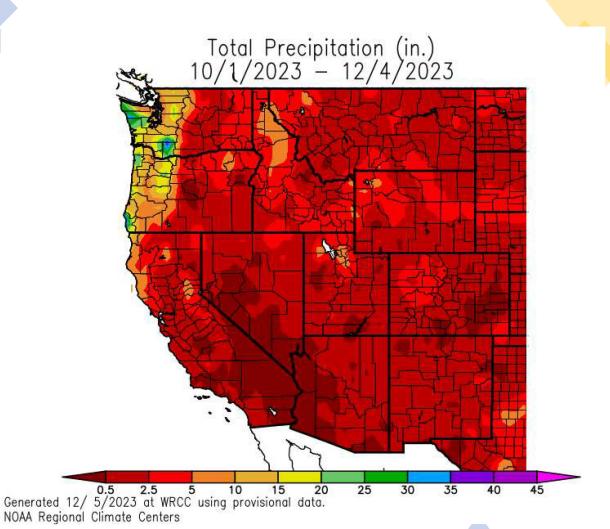
Max: 9.11"

Mean: 4.41"

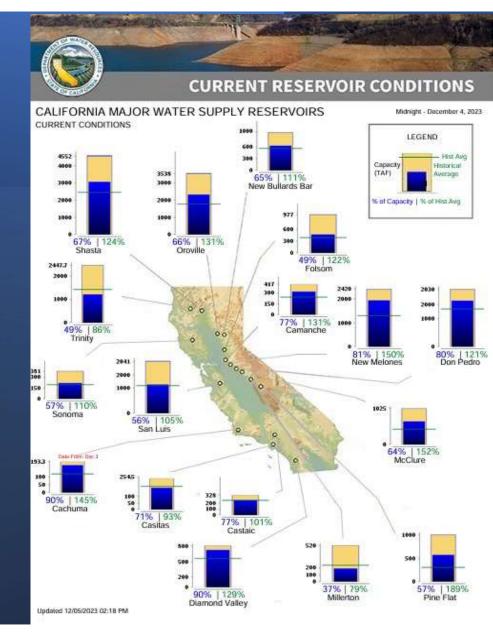
Min: 1"



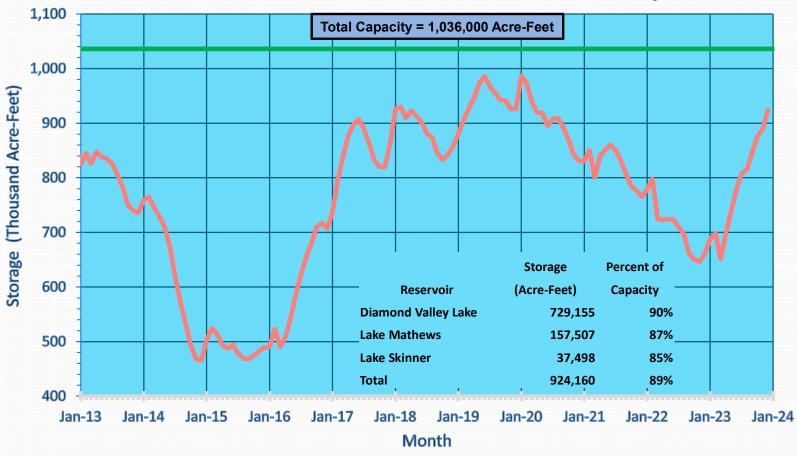
Precipitation for water year to date is 53% of historical average



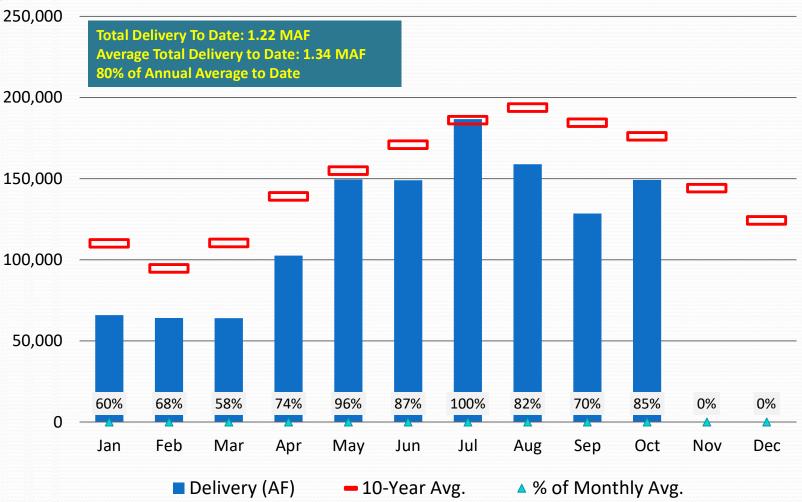
On Dec 1, 2023, DWR announced initial State Water Project Allocation of 10 percent for 2024.



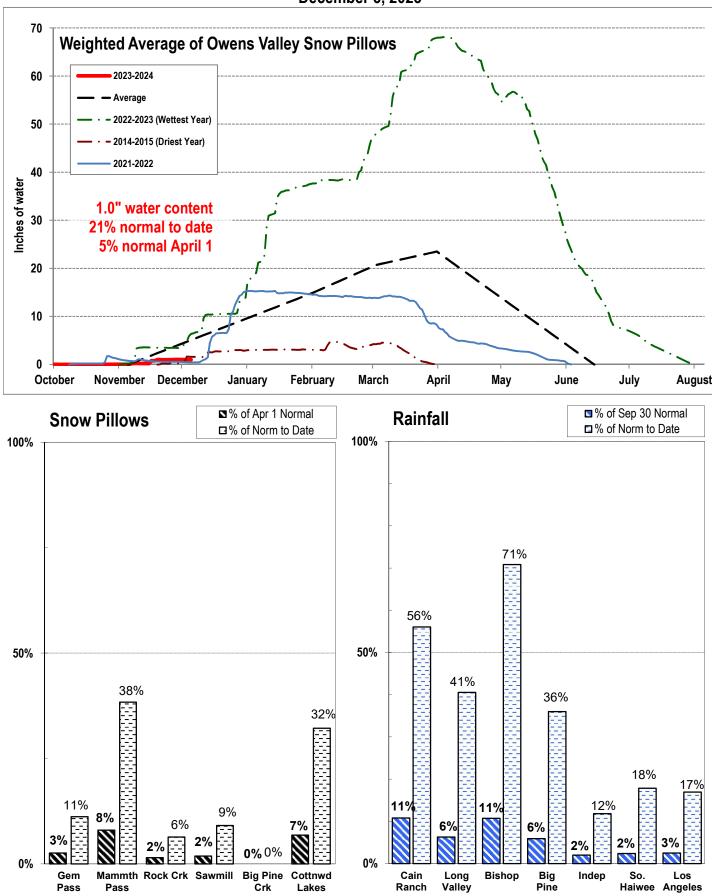
MWD's Combined Reservoir Storage as of December 1, 2023 Lake Skinner, Lake Mathews, and Diamond Valley Lake







EASTERN SIERRA CURRENT PRECIPITATION CONDITIONS December 5, 2023



0.8 in.

0.0 in.

0.9 in.

3.4 in.

0.2 in.

0.4 in.

0.62 in.

0.67 in. 0.55 in. 0.11 in.

0.17 in. 0.41 in.

1.09 in.