Colorado River Board of California

February 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, February 15, 2023
Time:	10:00 AM
Place:	Steve Robbins Administration Bldg. 75515 Hovley Lane East Palm Desert, CA 92211

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 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.

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.

Colorado River Board of California

REGULAR MEETING AGENDA
Wednesday, February 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

PUBLIC COMMENTS (Limited to 5 minutes.)

ADMINISTRATION

1. Consideration and approval of meeting minutes of the December 14th, 2022 board meeting **(Action)**

2. Consideration and approval of Board Resolution honoring Mr. Peter Nelson for his service as Board Chairman **(Action)**

3. 2023 Board Meeting Schedule **(Information)**

SPECIAL PRESENTATION

4. Overview of Coachella Valley Water District's water resources and facilities

REPORTS

5. Local and State Water Supply and Operations Reports

6. Colorado River Basin Water Supply and Operations Reports

7. Colorado River Basin Programs Staff Reports

8. Member Agency Reports

9. Executive Director's Report

10. Chairman's Report

EXECUTIVE SESSION[1]

[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.

OTHER BUSINESS

FUTURE AGENDA ITEMS & ANNOUNCEMENTS

ADJOURNMENT

Following the meeting, Coachella Valley Water District will host a lunch and brief tour of onsite facilities.

Next Scheduled Board Meeting

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

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, December 14, 2022

A meeting of the Colorado River Board of California (Board) was held on Wednesday, December 14, 2022, at the Caesars Palace Las Vegas Hotel and Casino, 3570 S. Las Vegas Blvd, Las Vegas, Nevada, 89109.

Board Members and Alternates Present:

David De Jesus (MWD Alternate)
Dana B. Fisher, Jr. (PVID)
John B. Hamby (IID)
Jeanine Jones (DWR Designee)
Peter Nelson, Chairman (CVWD)
Glen D. Peterson (MWD)
David R. Pettijohn, Vice Chairman (LADWP)
Jack Seiler (PVID Alternate)
Gary Croucher (SDCWA Alternate)
Jim Madaffer (SDCWA)

Board Members and Alternates Absent:

Castulo Estrada (CVWD Alternate)
James Hanks (IID Alternate)
Christopher Hayes (DFW Designee)
Delon Kwan (LADWP Alternate)
David Vigil (DFW Alternate)

Others Present:

Steve Abbot
John Aguilar
Luis Angel Arroyo
Jim Atkinson
Nick Bahr
Linda Bahr
Don Barnett
Alan Boyce
David Bradshaw
Dee Bradshaw
Alex Cardenas
Edgar Carrera
Grant Chaffin
Robert Cheng
Danielle Coats
Mike Cohen
Andrew Colace
Gloria Cordero
Liz Crosson
Dennis Davis
Christine DeMyers
Dan Denham
Gina Dockstader
Kevin Donhoff
Chris Dull
J.R. Echard
Jason Eckberg
Troy Edwards
Mackenzie Elmer
Craig Elmore
Stephen J. Elmore
Joaquin Esquivel
Karin Eugenio
Ray Face
Andrew Frost
Javier Gonzalez
Robert Grantham
Adel Hagekhalil
Emma Hager

Jasmin Hall
Tom Havens
Geoff Holbrook
Ned Hyduke Jeff Inwood
Jose Luis Jardines
Jordan Joaquin
Rich Juricich
Mel Katz
Sandy Kerl
Russell Leferre
Ronald Leimgruber
Thomas Love
Jing Luo
Gina Maguire
Frank Martinez
Dan McMillan
Brian McNeece
Aaron Mead
Marty Miller
Anna Murveit
Jessica Neuwerth
Nisha Noroian
Mike Pacheco
Kyle Paoletta
G. Patrick O'Dowd
Jennifer Pitt
Asia Philbin
Jennifer Pitt
Roberto A. Real Rangel
Shana Rapport
Angela Rashid
David Reynolds
Brad Robinson
Jerry Rovey
Frank Ruiz
Tom Ryan
Patrick Sanchez
Joel Scalzitti
Carrie Scott
Darren Simon
Ed Smith
Tim Smith
Travis Staheli
Jacqueline Tinetti
Jesus Tovar
Sara Tucker
Meggan Valencia
Katie Vanyo
Richard L. Vasquez
Cherie Watte
Shawn Weddle
Jay Weiner
Meena Westford
Patrick Whitby
Stephanie Zehven
Jerry Zimmerman

CALL TO ORDER

Chairman Nelson announced the presence of a quorum and called the meeting to order at 10:19 a.m.

Several Colorado River Board of California (Board) members took the opportunity to introduce colleagues from their respective agencies, as well as outside agencies. Chairman Nelson introduced Mr. Joaquin Esquivel from the California State Water Resources Control Board, Ms. Sara Tucker, the CRB's Washington DC lobbyist and Mr. Patrick O'Dowd from the Salton Sea Authority.

Board member Hamby, representing the Imperial Irrigation District (IID) introduced Mr. Sergio Quiroz, Assistant General Manager, Mr. Mike Pacheco, the Water Department Manager, and IID Board Members, Ms. Gina Dockstader, Mr. Javier Gonzalez, Mr. Alex Cardenas, and Ms. Karin Eugenio. He also introduced Ms. Joanna Smith Hoff and Mr. Geoff Holbrook as both part of IID's general counsel.

Board member Fisher, representing Palo Verde Irrigation District (PVID) introduced Mr. Jack Seiler, Alternate on the Colorado River Board, Mr. J.R Echard, General Manager of PVID, and Mr. Ned Hyduke, former General Manager. In addition, he also introduced PVID Vice President Brad Robinson and Board members, Mr. Grant Chaffin and Ms. Nisha Noroian.

Chairman Nelson, representing the Coachella Valley Irrigation District (CVWD), introduced Mr. Robert Cheng, Assistant Manager and Mr. John Aguilar, CVWD Board member.

Vice Chairman Pettijohn, representing the Los Angeles Department of Water and Power, introduced himself as the director of the Department of Resources and asked staff present to stand.

Board member Madaffer, representing the San Diego County Water Authority (SDCWA) introduced the agency's General Manager, Ms. Sandy Kerl, Mr. Dan Denham, Assistant General Manager, Mr. Gary Croucher, alternate to the Colorado River Board, and Mr. Marty Miller, a SDCWA Board member representing Vista Irrigation District. Mr. Madaffer also introduced other SDCWA staff, Mr. Darren Simon, QSA Outreach Coordinator and Mr. Dennis Davis, Water Resources Specialist.

Board member Jones, representing the California Department of Water Resources (CA DWR) introduced Joaquin Esquivel, Chairman of the California State Water Resources Control Board.

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. Hearing none, Chairman Nelson moved to the next item on the agenda.

ADMINISTRATION

Chairman Nelson asked for a motion to approve the November 9th, 2022, Board meeting minutes. Mr. Hamby moved that the minutes be approved, seconded by Mr. Pettijohn. By roll-call vote, the minutes were unanimously approved.

Chairman Nelson asked for a motion to approve the Board meeting Calendar for 2023. Mr. Pettijohn moved that the minutes be approved, seconded by Ms. Jones. By roll-call vote, the Board Meeting Calendar for 2023 was unanimously approved. Mr. Peterson requested that traveling meeting be considered in 2023.

COLORADO RIVER BASIN WATER REPORTS

Colorado River Basin Report

Mr. Juricich reported that as of December 12th, the water level at Lake Powell was 3,526.97 feet with 5.66 million-acre feet (MAF) of storage, or 24% of capacity. The water level at Lake Mead was 1,043.56 feet with 7.23 MAF of storage, or 28% of capacity. The total system storage was 19.12 MAF, or 33% of capacity, which is 3.06 MAF less than system storage at this time last year.

Mr. Juricich reported that as of December 1st, the observed November inflow to Lake Powell was 0.35 MAF, or 83% of normal. The December inflow forecast to Lake Powell is 0.28 MAF, or 87% of normal. The forecasted Water Year-2023 (WY-2023) unregulated inflow into Lake Powell is 7.70 MAF, or 80% of normal. The forecasted April to July inflow into Lake Powell is 5.04 MAF, or 79% of normal. The WY-2023 precipitation to date is 97% of normal and the current Basin snowpack is 115% of normal.

Mr. Juricich reported on the snow water equivalent (SWE) of the Basin stating that above normal conditions existed in the Rocky Mountains and mountains of the northern Colorado River Basin. He added that below normal SWE conditions existed in Arizona and Colorado, noting that current Basin SWE conditions are an improvement from last year's conditions.

Mr. Juricich reported on the below normal soil moisture conditions in Fall 2022, noting that summer monsoonal activity improved soil moisture conditions compared to last year.

Mr. Juricich presented a graphic showing the precipitation anomaly for all La Nina events compared to the 1991-2020 precipitation average. He reported that during La Nina years, the Rocky Mountains, Colorado, Wyoming, and Utah experienced close to normal or average precipitation.

Mr. Juricich reported on the projections from the October and November 2022 24-Month study. He stated that the most probably trace for 2024 has a Lake Powell release of 8.11 MAF. He noted that Lake Mead's most probable elevation will drop to a Level 3 shortage by June 2023.

Mr. Juricich reported that through the end of November, the Brock and Senator Wash regulating reservoirs captured 98,462 AF and 71,107 AF, respectively. He also reported that the excess deliveries to

Mexico were 8,511 AF, compared to 28,216 AF this time last year. Finally, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 136,957 AF through December 5th.

State and Local Report

Board Member Jones, reported on the results of the experimental forecast of November 2022 to March 2023 that analyzed the 10th, 50th, and 90th percentile for runoff in Northern and Southern California as well as the Upper Colorado. She noted that the experimental forecast model is funded by NOAA and has better accuracy, especially for the Upper Colorado River Basin.

Ms. Jones thanked Sara Tucker for her lobbying efforts in regard to NOAA, which may lead to additional funding in the Senate Appropriations bill.

Chairman Nelson commented that the 8-station index is 113% of normal, 6-station index is 85% of normal and the 5-station index is 130% of normal. He added that the aggregate SWE for California is 204% of normal. Ms. Jones remarked that California had record wet conditions last December, and there was no precipitation again until April. She cautioned that although precipitation conditions are good, it is still early in WY-2023 and we could be faced with similar conditions this year.

Board Member Peterson, representing The Metropolitan Water District of Southern California (MWD), reported that as of December 1st, MWD's reservoir storage is 64% of capacity. He also reported that MWD has delivered 1.39 MAF to its service area, which is 92% of the annual average delivery to date.

Board Member Pettijohn representing LADWP stated, that there have been significant storms within the Los Angeles service area. He noted that snowpack is 158% of normal to date, he noted that LADWP is having a great start but reminded the Board that there were similar conditions last year, before precipitation conditions dried up for the remainder of the winter season.

AGENCY END-OF-YEAR REPORTS

Coachella Valley Water District

Chairman Nelson reported on accomplishments of the Coachella Valley Water District (CVWD), conservation efforts in response to drought, groundwater replenishment activities, the mid-canal storage project.

Regarding drought response, Chairman Nelson reported that CVWD implemented a water shortage contingency plan, in accordance with the governor's declaration of emergencies. CVWD went to six tiers in its urban water pricing structure and activated all Level 2 and Level 3 mandatory conservation actions, including reducing the outdoor water budget by ten percent. Each property in the valley has their own water budget that was reduced by ten percent. Drought penalties were imposed in order to increase the price of urban water and thus, reduce demand.

Chairman Nelson reported that the Colorado River water conservation program implemented with the growers didn't really take off. In response, CVWD promoted a replenishment facility procurement program that was able to conserve a little over 9,000-acre feet to put into the 500+ Plan in 2022.

Chairman Nelson reported that CVWD communicated with urban users with education and water conservation programs and provided $3 per square foot incentive as a turf rebate. Two CVWD cities doubled that rate. CVWD is seeing a lot of interest in the program.

Chairman Nelson reported that since 2007, through CVWD's landscape plan and irrigation design ordinance, 270,000-acre feet of water has been saved. CVWD's large landscape smart controller rebate program has saved 240,000-acre feet of water since 2008. The tiered water rates mentioned earlier have saved just over three quarters of a million-acre feet. CVWD is saving approximately 119,000-acre feet of urban water use annually and looking to do more.

Chairman Nelson reported that on the Colorado River, CVWD's agriculture use is about 3.8-acre feet per acre. Sixty percent of customers are using drip irrigation. Lining 49 miles of the Coachella Canal, with partners San Diego and the San Luis Rey Indian Tribe under the Quantification Settlement Agreement, is saving 132,000-acre feet a year.

Chairman Nelson reported that CVWD replenishment activities started in 1918, beginning with the canal coming into the Coachella Valley and the beginning of CVWD State water project deliveries. Prior to the Sustainable Groundwater Management Act, several replenishment facilities were built including Whitewater, Mission Creek, the Levy facility, the Palm Desert facility. CVWD's replenishment facilities have put 4 million-acre feet in the ground. There is an Oasis In-Lieu Recharge Project which started about ten years ago to alleviate groundwater pumping. This is to use Colorado River as a substitution for groundwater use, which is scheduled for delivery in 2023 to 2024.

For their mid-canal storage project, CVWD partners with the San Diego County Water Authority, San Luis Rey Indian Tribe, and Bureau of Reclamation (Reclamation). The project has received a low-interest loan to remove tiling to build a storage facility in the canal to better manage the flows and have less regulatory water and water loss at the end of the line. The design work was completed in 2022 with construction expected to finish in 2023.

Imperial Irrigation District

Ms. Shields, the Water Department Manager from the Imperial Irrigation District (IID), provided a summary of IID's accomplishments in 2022. Ms. Shields reported that due to Tier 1 shortage requirements for 2022, IID must adhere to an overrun payback obligation. She explained that to meet this obligation IID's Board of Directors implemented a retroactive Equitable Distribution Plan (EDP) in mid-May. She stated that IID water users responded immediately by reducing cropping plans and water use demands. She added that within four months, IID's water use projects decreased by about 100,000 AF an underrun forecast before measurable rainfall was recorded in the Imperial Valley.

Ms. Shields reported that IID has continued coordination of local renewable energy and mineral extraction projects and proposals at the Salton Sea. She also showed photos of IID's installation of additional buoys on the All-American Canal to reduce the risk of drownings in the canal.

Ms. Shields reported that it is the 20th anniversary of Quantification Settlement Agreement (QSA) water transfers. She stated that IID continues to meet all QSA water conservation obligations generating over 7.2 MAF of conserved water to support Southern California water supply reliability and Lake Mead through system efficiency and conservation improvements as well as on-farm efficiency conservation programs. She stated that IID growers have shown support and participation in the on-farm efficiency conservation programs. She reported that IID hopes to continue to grow the on-farm efficiency and conservation program to create additional conservation.

Ms. Shields remarked that water conversation also means less water that will go to the Salton Sea. She noted that IID continues to work with the State of California Natural Resources Agency to develop restoration and mitigation projects. She hopes that some of the State restoration projects will be completed next year.

Ms. Shields reported that IID developed the California Drought Protection Plan proposal to conserve up to an additional 1.6 MAF cumulative water savings through 2026, with IID conserving up to 1 MAF pending sufficient funding, voluntary participation, Salton Sea mitigation, permitting and IID Board approval. She reported that there a lot of the details to work out, but over a four-year period, IID is proposed to conserve 250,000 AF of additional conservation each year. She stated that this would increase IID's conservation from 16% to 24% of its annual entitlement. She reported that IID has submitted for federal funding to support this conservation effort. She stated that IID has begun discussions with growers about this program and how it will impact current on-farm efficiency programs and the EDP. Ms. Shields remarked that from 2003 to 2022, IID's QSA Water Conservation and Transfer has generated more than 7.2 MAF.

Ms. Shields stated that in conjunction with the potential drought protection plan from California, the IID's Board authorized a partnership with the federal government, California Natural Resources Agency, and the Coachella Valley Water District that would provide $250 million of federal funding to accelerate implementation of the Salton Sea.

Ms. Shields acknowledged the retirement of Board member Jim Hanks and recognized his 16-year term on IID's Board and eleven-year service on the CRB.

Los Angeles Department of Water and Power

Vice Chairman Pettijohn reported that the City of Los Angeles has been in a serious drought situation throughout 2022. An executive order has been issued that directed all water suppliers to reduce water use and adhere to Level 2 of LADWP's water shortage contingency plan.

Mr. Pettijohn reported that the city is getting about fifty-five gallons per person per day from the State of California and supplementing that water with local supplies. LADWP has instituted Level 3 in the City of Los Angeles. Customers can water outdoors two days a week, eight minutes a station, for a total of watering outdoors of sixteen minutes a week.

Mr. Pettijohn reported there has been about a ten percent reduction in water use this year due to the action taken. The City of Los Angeles is at 110 gallons per person per day, including water losses and commercial, industrial, and institutional uses.

Mr. Pettijohn reported that the LADWP has gone through significant operational changes. Dependence upon State Water Project (SWP) and lack of access to Colorado water storage is problematic. LADWP is shifting demand from the SWP to Colorado River where possible but there are limits to what can be done operationally. Vice Chairman Pettijohn reported that LADWP has done everything it can to augment supplies with groundwater, as well.

Mr. Pettijohn reported on LADWP conservation activities. LADWP increased total rebates from $150 to $300 for people who want to replace their landscape outdoors and increased the rebates from $3 per square foot to $5 per square foot. LADWP also increased incentives for their commercial sector, now offering up to $2 million to a business to improve their water efficiency. Mr. Pettijohn reported that LADWP also offers pre-landscape design services to customers who want to replace their landscapes outdoors and is expanding its home water use report program. Mr. Pettijohn reported that LADWP provides recycled water fill stations. Those in Los Angeles who want to use more than their allotted water, can get up to 300 gallons per trip to water outdoors.

Mr. Pettijohn reported on a program offering discounted metering devices, which allow customers to connect their water meter to a smart phone to review their water usage. Leaks will be visible as a spike in use. As of December 1st, LADWP has sold over 9,300 devices to customers.

Mr. Pettijohn reported that there has been a major increase in reports of water waste to LADWP's water conservation response unit that investigates complaints. When customers see wasted water flowing down the street or flowing off properties, they can report the water waste. LADWP sends its response teams out and writes a citation if they don't receive a response. He remarked that it's been an effective way to enforce the ordinance.

Mr. Pettijohn reported that LADWP is also investing in stormwater capture and groundwater replenishment. He stated that LADWP is moving forward with plans to create stormwater capture infiltration at nine parks in a disadvantaged area of the San Fernando Valley, providing community benefits and stormwater capture. Mr. Pettijohn reported on the groundwater replenishment program taking water from Donald C. Tillman Water Reclamation Plant and putting it into the Hansen Spreading Grounds, providing an additional 17,000 AF a year at the Donald C. Tillman Water Reclamation Plant.

Mr. Pettijohn reported that the City of LA used 12,000 AF of recycled water this year, the most in its history, and plans to dramatically increase recycled water use in the future. Operation NEXT will recycle wastewater treatment plant water and return it to LADWP's system, bringing that water to groundwater

basins and eventually using it as source water for the plant. The end goal is for all four water reclamation plants in the City of Los Angeles to be 100% recycled water.

Metropolitan Water District

Board Member Peterson reported that the Metropolitan Water District (MWD) spent $40 million over the last two years on conservation, turf replacement and other devices. This resulted in replacement of nine million square feet of turf, 27,000 smart irrigation controllers, 60,000 high efficiency sprinkler nozzles, and 31,000 high efficiency clothes washers, resulting in lifetimes water savings of 89,000 AF.

Mr. Peterson reported that MWD's main focus is improving outdoor water efficiency. In addition to the incentive rebates, MWD offers a wide range of classes, workshops, and trainings for both residents and landscape professionals. Mr. Peterson reported on MWD's Turf Replacement Program research, which found that for every one-hundred homes that received a rebate to convert landscape by taking out grass and putting in California Friendly landscape, 132 more homes do it voluntarily. The program has been in place for ten to fifteen years.

Mr. Peterson reported on MWD's Board action in November 2021 to adopt a resolution declaring a water shortage and prompted a call for accelerated conservation. He stated that MWD focused on enhanced incentives for public agency projects so agencies could lead by example. Mr. Peterson reported that on December 13th, MWD's Board passed a resolution to reaffirm the Regional Drought Emergency in effect since November 2021. This action recognized the seriousness of the Colorado River drought and public call for urban reduction and prepare for potential Water Supply Allocation in Spring 2023.

Chairman Nelson announced that Mr. Peterson would no longer be serving on the Colorado River Board in a few months and would be replaced Ms. Gloria Cordero. He thanked Mr. Peterson for his leadership, knowledge, and inquisitive questions on the Colorado River Basin. Mr. Peterson stated that Ms. Cordero is still awaiting approval by the Governor of California.

Palo Verde Irrigation District

Board Member Fisher reported that the Palo Verde Irrigation District (PVID) has three new members, that Mr. JR Echard became the manager following the retirement of Ned Hyduke and that PVID's president, Jack Seiler, matriculated out of office and is replaced by Bart Fisher. Jack Seiler is the alternate member to the Colorado River Board from Palo Verde.

Mr. Fisher reported that California is committed to contributing up to 400,000 AF of conserved water to try to sustain Lake Mead's elevation levels. Palo Verde, starting in 2021, was contributing about 60,000 AF annually in the 500-Plus Plan and in cooperation with MWD made a 100 percent option call under MWD's agreement with the intent of a large majority of that water being contributed to Lake Mead. This is the maximum amount of conservation allowable under the environmental compliance under the Metropolitan program.

Mr. Fisher introduced Mr. JR Echard. Mr. Echard reported that through the 500-Plus Plan, PVID contributed 60,000 AF of conserved water to Lake Mead as system water in both 2021 and 2022, through the fallowing program with Metropolitan. Mr. Echard reported that on November 21st, Metropolitan joined with PVID to submit a proposal to Reclamation through its Lower Colorado River Basin System Conservation and Efficiency Program. Under the proposal, a one-hundred percent fallowing call would be issued through the MWD/PVID fallowing program, fallowing up to 90,460 acres (30% of the Palo Verde Valley) for a minimum of 3 years, saving up to 370,000 AF in Lake Mead as system water.

Mr. Echard reported that PVID was awarded a grant from United States Department of Agriculture (USDA) to line 1.75 miles of an open canal. He stated that PVID is continuing its development of its environmental watershed plan. Mr. Echard stated that PVID plans to evaluate its drains, canals, surface, and subsurface flow that returns water to the Colorado River. He stated that PVID will analyze whether there are reuse opportunities.

San Diego County Water Authority

Board Member Madaffer reported on some of the key initiatives for the San Diego County Water Authority (SDCWA). Mr. Madaffer noted that SDCWA's key drought response actions including continued participation in the QSA with on-going investments in the Imperial Valley and a reaffirmed commitment to conservation through participation in the Colorado River Basin MOU, incentives to support regional conservation, and expanded outreach.

Mr. Madaffer reported on the San Vicente energy storage project, a partnership with the City of San Diego. SDCWA is now authorized to have staff negotiate with a full-service team to perform the first phase of the project. The project will pump water up during the day and when the sun goes down at night will drop water down to generate energy.

Mr. Madaffer reported that the Carlsbad Desalination Plant served one hundred billion gallons of water to San Diego County. Board Member Madaffer cited this as an example of where infrastructure funds from the Biden administration could be used to add another 6,000 AF production to the plant, reducing demand from the Colorado River.

Mr. Madaffer reported that the Water Authority has named a top workplace in 2022 as well as being awarded its first ever utility patent for a tool that was invented by staff to help save time and reduce cost and for safety.

Mr. Madaffer reported that SDCWA supported other member agencies' local supply projects. He showed a list of some of the projects. Projects already online are generating about 12,000 AF of water per year. This includes the Sweetwater Brackish and Pure Water Oceanside projects, as well as the Fallbrook Santa Margarita conjunctive use project. Mr. Madaffer reported on projects that are planned to come online between 2023 and 2025 and that will add an additional 33,000 AF of water per year during initial phases.

Mr. Madaffer reported that the SDCWA continues to want to seek participation in the ICS program for storage in Lake Mead as a long-term strategy for flexible management.

Board Member Jones provided additional context about California's on-going drought response. She stated that during the past and current fiscal year, California Department of Water Resources has awarded $262 million in drought emergency response grants to small agencies, which included 127 projects, and $268 million to larger agencies. She reported that this year, the State budget gave out $500 million for drought relief grants, of which $50 million is earmarked for MWD. She added that MWD and LADWP have previously mentioned the struggles with moving Colorado River Water into parts of MWD's western service area and that much of the $50 million will go to helping with this issue.

COLORADO RIVER BASIN STATES ACTIVITIES

Colorado River Basin Salinity Control Program Implementation

Mr. Don Barnett, Executive Director of the Colorado River Salinity Control Forum, provided a report on the activities of the Salinity Control Program. Reclamation's primary salinity coordinator, Aung Hla, announced his retirement effective November 30, 2022. This is a crucial position that oversees many aspects of the Salinity Control Program, including the Basinwide and Basin States program funding, and facilitates program implementation and coordination between federal agencies. The Forum expects to work closely with Reclamation in providing the states thoughts about desirable qualifications to fill this important position.

Mr. Barnett provided an update on the status of the Paradox Valley Salinity Control Program. Reclamation concluded the six-month injection test at the Paradox Valley Unit (PVU) on December 2nd, 2022. The surface injection pressure at shut in was ~4110 psi and all conditions were normal. Pressure falloff data will be collected for three weeks, then provided to a technical consultant for formal analysis of well and reservoir performance. During this period, Reclamation will evaluate the seismicity recorded during the test, focusing on the aftershock region of the 2019 earthquake. Reclamation will also model different injection rates and shut down scenarios to determine the next operational parameters. After review of the aforementioned analyses, a decision will be made on operations concurrent with the seismic risk analysis process and until its conclusion. Previously PVU had not operated since March 2019 in response to a significant seismic event. When fully operational, the PVU removed about 100,000 tons of salt per year that would have otherwise entered the Colorado River. Reclamation has proposed releasing a Statement of Objectives to solicit new proposals for PVU. The Forum is tracking PVU activities closely and will advocate for restarting injection at PVU within the constraints of the existing infrastructure as soon as possible.

Mr. Barnett provided an overview of the current Salinity Program funding. He mentioned the program has $10.7 million in program funding from Reclamation and $2.0 million from the Bureau of Land Management for FY 2024.

Status of the Lower Colorado River Multi-Species Conservation Program

Ms. Neuwerth reported that an updated Biological Opinion was finalized that will allow for additional flow reductions along the Lower Colorado River. Under the new Biological Opinion, along the lower Colorado River from Hoover Dam to Imperial Dam, flows can be reduced up to 1.574 MAFY. Ms. Neuwerth stated that further flow reductions above 1.574 MAFY will likely be need going forward.

GENERAL ANNOUNCEMENTS AND UPDATES

DOI to Modify 2007 Guidelines for 2023 and 2024

Mr. Harris reported that on October 28th, the Department of the Interior (DOI) published a Notice of Intent (NOI) to prepare a supplemental Environmental Impact Statement (EIS) for the December 2007 Record of Decision (ROD). Mr. Harris stated that DOI is accepting comments on the NOI, recommendations, and suggestions associated with the any potential modification of the ROD by December 20th. He reported that within California, the Board staff is working closely with the agencies to develop a comment response letter for submission on or before December 20th. He added that Board staff is also working with colleagues in the other seven Basin states to see if it is possible to utilize joint messaging topics. Mr. Harris reported that there was a recent meeting among the seven Basin states and DOI to develop a framework alternative, which is one of the suggested alternatives in the NOI. He added that during the meeting they also discussed what Reclamation would do to modify the 2007 ROD if there is not a framework agreement.

Mr. Harris explained that California and the other states will work to collaboratively develop an alternative by the end of January. He stated that Reclamation and DOI will probably have a draft supplemental EIS by late spring and then a final supplemental EIS and modified 2007 ROD by mid-summer.

Reclamation Launches Post-2026 Technical Workgroup

Mr. Harris reported that by the end of 2026, the existing 2007 Interim Guidelines will expire along with the DCP and Minute 323. He announced that Reclamation is launching a Post-2026 Technical Workgroup which will assist interested partners from across the Basin gain a better understanding of the technical tools and approaches for the post-2026 process. The workgroup will include Tribes, States, water agencies, non-governmental organizations, other federal agencies, academics, and Mexico. He added that the workgroup will facilitate the transfer of information and data among those participating in discussions in developing the next set of guidelines.

Mr. Harris reported that Reclamation will be innovative and thoughtful on their approach with the development of the next set of Guidelines by utilizing robust decision-making strategies and scenarios.

Washington, DC Updates

Ms. Tucker reported on the 2022 mid-term elections, noting that the Republicans will have a majority in the House of Representatives (House), by gaining nine seats. She added that a vote for the House speakership will occur on January 3, 2023, and it is expected that Representative (Rep.) McCarthy will win this role. She stated that Democratic leadership has changed to include Representatives Jeffries from New York, Aguilar from California, and Clark from Massachusetts.

Ms. Tucker reported that by January, the House and Senate leadership will be known. She stated Congressman Westerman will be the chair of the House Resources Committee. She stated that there is a majority of Democrats in the Senate which allows them to process legislation and nominations, in addition to bigger budgets and stronger power to issue subpoenas. She also noted Senator Sinema's decision to leave the Democratic party and become an Independent, noting that it shouldn't have an impact on the Senate.

Ms. Tucker reported that senators in Basin states who were all up for reelection won their elections. She reported that the House is going to vote on a continuing resolution (CR) and the Senate will adopt it during this week, which will give them an additional week to negotiate for the omnibus spending package. Ms. Tucker stated that she did not believe that the government would shut down due to retirements in the Senate and that there will be a full year of omnibus appropriations. She reported that the Senate is preparing to pass the National Defense Authorization Act (NDA). She explained that the NDA includes the Water Resources Development Act which authorizes billions of dollars for the U.S Army Corp of Engineers flood control navigation and restoration projects.

Ms. Tucker reported that she has been working with California senators to get a Salton Sea bill passed by Congress. She stated that Congress is also considering a small package of water bills that include the Salton Sea bill as well as other Basin system conservation and the Operation Recovery Act. She stated that the bill should pass in the Senate and the House and then move to the President for signature.

Ms. Tucker reported that on December 13th, Deputy Secretary of the DOI and the Senate Energy and Natural Resources Committee held a hearing to review the DOI's implementation of the Infrastructure Investment and Jobs Act. She noted that there were several questions related to the Colorado River and how the funding has impacted the drought in the West.

Ms. Tucker reported that fifteen senators, including California, Arizona, Washington, Nevada, New Mexico, and Oregon sent a letter to Secretary of Agriculture, Mr. Tom Vilsack to divert appropriate resources to the drought crisis in the West. She added that this letter and pressure from Western States could influence Congress to address drought concerns in the Farm Bill that will be passed in 2023.

Chairman Nelson thanked Ms. Tucker and stated that she was a great asset to the Colorado River Board of California.

ADDRESS FROM ASSISTANT SECRETARY FOR WATER AND SCIENCE

Chairman Nelson introduced Ms. Tanya Trujillo, Assistant Secretary of Water and Science. Ms. Trujillo stated that she learned a lot from the presentations. She stated that the importance of the Colorado River is clear to her and the federal government and is now also recognized across the country and the world.

Ms. Trujillo remarked that she is an alumnus of the Colorado River Board of California and has had the opportunity to work with many of the municipal and agricultural agencies. She noted her gratitude for the opportunity to learn about the complex issues in California and the importance of California's Colorado River water apportionments to the people who grow food and provide water to cities and tribal communities.

Ms. Trujillo stated that earlier today she had an opportunity to meet with the Upper Basin Colorado Commission and recognized how interconnected issues in the Upper and Lower Colorado are. She emphasized that in her current role as the Assistant Secretary of Water and Science, she has direct oversight of Reclamation and the United States Geological Services (USGS). She stated that she also works closely with Secretary Haaland and the Deputy Secretary on issues throughout the departments. She stated that she also works closely with her counterpart for Indian Affairs, Assistant Secretary, Mr. Bryan Newland and Assistant Secretary of Interior for Fish, Wildlife and Parks, Ms. Shannon Estenoz. She noted that they work as a team on a host of complicated and interconnected issues.

Ms. Trujillo added that she is happy to be part of the team at DOI that is working on the supplemental EIS process. She stated that this process is one of DOI's major initiatives to evaluate what additional options DOI has for operating the Colorado River reservoir system during critically dire hydrology. She reported that DOI will be working closely with the water users in California and agencies represented on the Board to make sure DOI is successful in protecting the resources in the Basin.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 11:56 a.m.

RESOLUTION OF THE
COLORADO RIVER BOARD OF CALIFORNIA

HONORING

PETER NELSON

WHEREAS, the water and power resources of the Colorado River are vital to the State of California and its citizens; and

WHEREAS, the Colorado River Board of California represents and protects California's water and power interests within the Colorado River Basin, consistent with the Law of the River, through negotiations and dialogue with the other Colorado River Basin states and the federal government; and

WHEREAS, the Board's Chairman serves as California's Colorado River Commissioner, the consolidated voice for California's Colorado River water and power users in efforts with state and federal partners, a role that requires a significant commitment of time and effort; and

WHEREAS, Mr. Peter Nelson was appointed to the Colorado River Board in 2015, representing the Coachella Valley Water District; and

WHEREAS, Mr. Nelson was elected as Colorado River Board Chairman in August 2018 and served as Chairman through January 2023, adding to an active and ongoing career in water resources management and public service; and

WHEREAS, during Mr. Nelson's time as Chairman, the Colorado River Basin States have grappled with an unprecedented period of low runoff and declining reservoir levels, which have necessitated intensive and often contentious negotiations among the Basin States and California's Colorado River stakeholders, to which Mr. Nelson brought collegiality, practicality, and dedication; and

WHEREAS, as Chairman, Mr. Nelson worked with partners within and outside of California to advance the 2019 Drought Contingency Plan, which expanded water use reductions in the Lower Basin in response to low reservoir conditions, and played a key role in years of negotiation on how to further reduce water use across the Basin; and

WHEREAS, in addition to Mr. Nelson's contributions to the Colorado River Basin, he has served as a member of the Coachella Valley Water District Board of Directors from 2000 through the present, including a six-year term as CVWD Board President and a four-year term as Board Vice President; and

NOW THEREFORE BE IT RESOLVED that the Colorado River Board of California recognizes and honors the many contributions of Mr. Peter Nelson to the State of California and its water users during his tenure as Chairman of the Colorado River Board; and

BE IT FURTHER RESOLVED that the Colorado River Board of California and its staff extend their gratitude to Peter and his family for his devoted service as Chairman.

Unanimously adopted on the 15th day of February 2023.

_____

J.B. Hamby, Chairman

February 15, 2023 **BOARD AGENDA MEMORANDUM** **Information**

SUBJECT	2023 Board Meeting Schedule
AGENCY	Colorado River Board of California
PRESENTER	JB Hamby, chairman Jim Madaffer, vice chairman

Background

Over the past several decades, the Colorado River Board of California has typically met at hotel meeting spaces in Ontario, California and, for its December monthly meeting, at the annual Colorado River Water Users Association conference in Las Vegas, Nevada.

From 2014 to 2017, the Board rotated its monthly meeting locations between member agency offices, ACWA and UWI conferences, and other sites, including LADWP's Bishop, California facilities, MWD's Diamond Valley Lake Training Center, and DFW's Palo Verde Ecological Reserve. In 2020, the Board's meeting schedule anticipated quarterly meetings and tours to occur at member agency offices and the remainder at hotels in Ontario. The COVID-19 pandemic disrupted those plans, and the Board hosted virtual or hybrid meetings until 2022 when the Board returned to meeting at an Ontario hotel. Recently, members have expressed interest in locating meetings beyond Ontario and hosting tours from time to time.

Chairman Hamby and Vice Chairman Madaffer have developed the attached standard template for board meeting dates and locations and a concept board meeting schedule for the 2023 calendar year. The annual board meeting schedule template anticipates hosting four meetings in the desert region during cooler months, four in the coastal region during warmer months, a 2-day tour and meeting quarterly, and the December meeting at CRWUA. The 2-day quarterly tour and meeting would include the regular Board meeting held on Wednesday morning and an afternoon tour on Tuesday the day prior.

The 2023 board meeting schedule concept anticipates each member water agency hosting one meeting in the calendar year. The updated meeting agenda format now includes a "Special Presentation" item, which will be presented either by the hosting agency, another presenter or a guest on a subject related to the meeting location or an item of interest related directly or indirectly to Colorado River matters.

Recommendation

Information and discussion only.

Annual Board Meeting Schedule Template

Date	Meeting Location
January	Desert Region*
February	Desert Region
March	Quarterly Tour/Meeting (2-Day)
April	Coastal Region
May	Coastal Region
June	Quarterly Tour/Meeting (2-Day)
July	Coastal Region*
August	Coastal Region
September	Quarterly Tour/Meeting (2-Day)
October	Desert Region
November	Desert Region
December	CRWUA

*Potential Cancellation

2023 Board Meeting Schedule Concept — *In Progress*

Date	Meeting Location
January 11	Ontario
February 15	CVWD
March 14-15	SDCWA Quarterly Tour/Meeting (2-Day)
April 12	MWD
May 10	Long Beach
June 13-14	LADWP Quarterly Tour/Meeting (2-Day)
July 12	Coastal Region*
August 9	TBD Coastal Region
September 12-13	TBD Quarterly Tour/Meeting (2-Day)
October 11	PVID
November 15	IID
December 13	CRWUA

*Potential Cancellation

2/6/2023

LOWER COLORADO WATER SUPPLY REPORT

River Operations
Bureau of Reclamation

Questions: BCOOWaterops@usbr.gov
(702)293-8373
http://www.usbr.gov/lc/region/g4000/weekly.pdf

	PERCENT FULL	Content 1000 ac-ft (kaf)	Elev. (Feet above mean sea level)	7-Day Release (CFS)
CURRENT STORAGE				
LAKE POWELL	23%	5,427	3,522.93	8,600
* LAKE MEAD	29%	7,461	1,046.91	7,800
LAKE MOHAVE	93%	1,684	642.47	6,700
LAKE HAVASU	92%	567	447.32	5,600
TOTAL SYSTEM CONTENTS **	33%	19,054		
As of 2/5/2023				
SYSTEM CONTENT LAST YEAR	37%	21,769		

*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	79%	1,800		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	14%	136	1,124.24	25

Forecasted Water Use for Calendar Year 2023 (as of 2/6/2023) (values in kaf)

NEVADA	224	
SOUTHERN NEVADA WATER SYSTEM		212
OTHERS		12
CALIFORNIA	4,469	
METROPOLITAN WATER DISTRICT OF CALIFORNIA		1,003
IRRIGATION DISTRICTS		3,448
OTHERS		18
ARIZONA	2,367	
CENTRAL ARIZONA PROJECT		1,141
OTHERS		1,226
TOTAL LOWER BASIN USE		7,061
DELIVERY TO MEXICO - 2023 (Mexico Scheduled Delivery + Preliminary Yearly Excess[1])		1,419

OTHER SIGNIFICANT INFORMATION
UNREGULATED INFLOW INTO LAKE POWELL - FEBRUARY FINAL FORECAST DATED 2/3/2023

	MILLION ACRE-FEET	% of Normal
FORECASTED WATER YEAR 2023	10.439	109%
FORECASTED APRIL-JULY 2023	7.500	117%
JANUARY OBSERVED INFLOW	0.361	107%
FEBRUARY INFLOW FORECAST	0.300	82%

	Upper Colorado Basin	Salt/Verde Basin
WATER YEAR 2023 PRECIP TO DATE	123% (14.1")	141% (15.2")
CURRENT BASIN SNOWPACK	139% (13.6")	189% (7.8")

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

Feb 08, 2023 01:59:23 PM

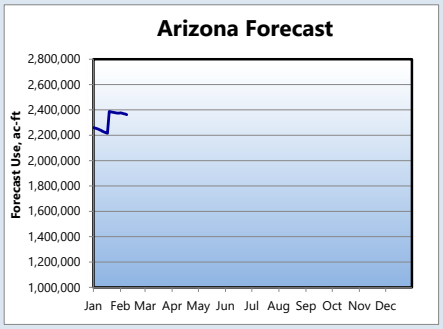
BUREAU OF RECLAMATION

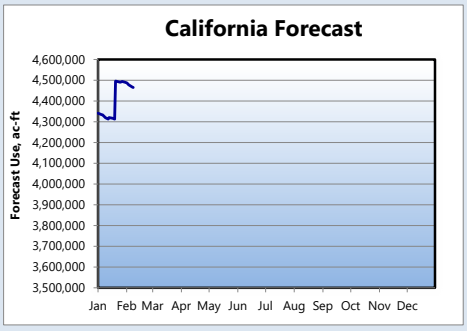
LOWER COLORADO BASIN REGION
CY 2023

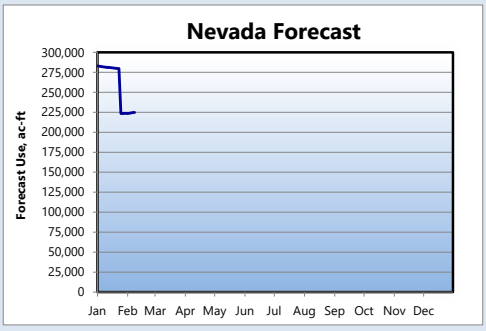
ARIZONA, CALIFORNIA, NEVADA, MEXICO
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS [1]
(ACRE-FEET)

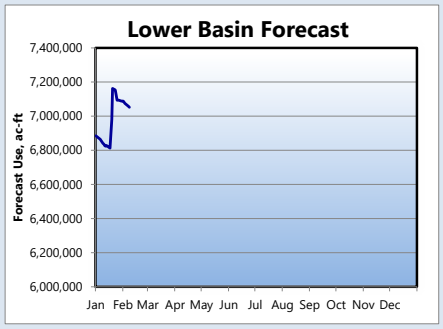
WATER USE SUMMARY	Use To Date CY 2023	Forecast Use CY 2023	Approved Use [2] CY 2023	Excess to Approval CY 2023
Arizona	75,947	2,362,153	2,262,209	**99,944**
California	195,491	4,464,854	4,341,455	**123,399**
Nevada	9,749	224,863	224,863	0
States Total [3]	**281,187**	**7,051,870**	**6,828,527**	**223,343**
Total Deliveries to Mexico [4]	144,974	1,384,791	1,384,791	
Creation of Mexico's Recoverable Water Savings [5]	0	34,000	34,000	
Creation of Mexico's Water Reserve [6]	11,208	11,208	11,208	
Total to Mexico in Satisfaction of Treaty Requirements [7]	156,182	1,429,999	1,429,999	
To Mexico in Excess of Treaty [8]	8,073	34,209	28,963	
Water Bypassed Pursuant to IBWC Minute 242 [9]	16,407	121,262	117,192	
Total Lower Basin & Mexico [10]	**450,641**	**8,592,132**	**8,359,473**	

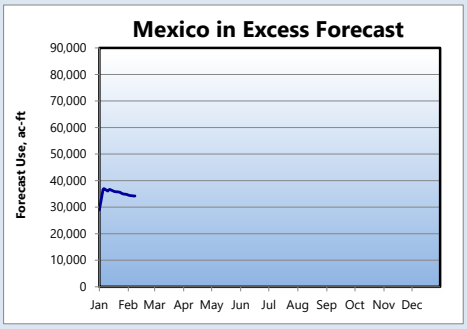
[1] Incorporates 80 daily reporting stations which may be revised after provisional data reports are distributed by the USGS. Use to date is estimated for users reporting monthly and annually.
[2] These values reflect adjusted apportionments. See Adjusted Apportionment calculation on each state page.
[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.
[5] 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).
[6] Water deferred by Mexico pursuant to Section V of IBWC Minute 323.
[7] 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 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.
[8] "To Mexico in Excess of Treaty" forecast is based on the 5-year average for the period 2017-2021.
[9] "Water Bypassed Pursuant to IBWC Minute 242" forecast is based on the average for the period 1990-2021.
[10] Includes States Total, Total Deliveries to Mexico, To Mexico in Excess of Treaty, and Water Bypassed Pursuant IBWC Minute 242.

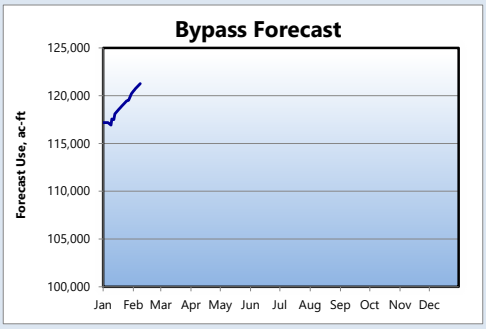












Graph notes: January 1 forecast use is scheduled use in accordance with the Annual Operating Plan's state entitlements, available unused entitlements, and over-run paybacks. A downward sloping line indicates use at a lower rate than scheduled, upward sloping is above schedule, and a flat line indicates 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.**

Feb 08, 2023 01:59:23 PM

BUREAU OF RECLAMATION

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.

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

WATER USER	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
Marble Canyon Company	0	7	7	---	1	11	11	0
Lake Mead NRA, AZ - Diversions from Lake Mead	2	68	68	---	2	68	68	0
Lake Mead NRA, AZ - Diversions from Lake Mohave	21	218	218	---	21	218	218	0
McAlister Family Trust	0	7	7	---	1	10	10	0
Bureau of Reclamation - Davis Dam Project	0	2	2	---	1	10	10	0
Bullhead City	656	8,699	8,699	---	1,054	13,730	13,730	0
Mohave Water Conservation District	66	749	749	---	98	1,115	1,115	0
Mohave Valley I.D.D.[1]	1,947	21,209	21,209	---	3,604	39,276	39,276	0
Fort Mojave Indian Reservation, AZ	1,785	42,892	44,280	---	3,305	79,430	82,000	-2,570
Golden Shores Water Conservation District	20	287	287	---	30	432	432	0
Havasu National Wildlife Refuge	2	3,455	3,564	---	16	40,554	41,835	-1,281
EPCOR Water Arizona, Inc. - CSA No. 1	47	527	527	---	72	810	810	0
Crystal Beach Water Conservation District	5	73	73	---	8	112	112	0
Lake Havasu City	722	9,052	9,052	---	1,165	14,600	14,600	0
Arizona State Parks (Windsor Beach)	1	11	11	---	1	17	17	0
Central Arizona Water Conservation District [2]	49,857	1,138,553		---	49,857	1,138,553		--
Hillcrest Water Company	1	21	21	---	2	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)	28	327	327	---	42	489	489	0
Town of Parker	23	418	418	---	67	912	912	0
Colorado River Indian Reservation, AZ	-3,411	353,128	360,641	---	8,866	641,090	662,402	-21,312
GM Gabrych Family	205	2,925	2,925	---	315	4,500	4,500	0
Ehrenberg Improvement District	18	260	260	---	26	365	365	0
B&F Investment	1	8	8	---	1	11	11	0
North Baja Pipeline	14	200	200	---	22	308	308	0
Arizona State Land Department - Domestic	4	40	40	---	6	61	61	0
Cibola Valley I.D.D.	134	5,322	5,322	---	188	7,443	7,443	0
Red River Land Co.	0	214	214	---	0	300	300	0
Hopi Tribe	44	3,061	3,061	---	61	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	49	705	705	---	69	986	986	0
Cibola National Wildlife Refuge	293	14,264	14,264	0	472	23,005	23,005	0
Western Water, LLC	4	379	379	---	5	530	530	0
Cibola Sportsmans Club	4	154	154	---	5	216	216	0
Bishop Family Trust	7	300	300	---	10	420	420	0
Cathcarts	2	90	90	---	4	126	126	0
Imperial National Wildlife Refuge	382	3,799	3,799	0	617	6,128	6,128	0
BLM - Leased by L. Pratt	4	58	58	---	6	89	89	0
BLM Permittees (Parker Dam to Imperial Dam)	89	1,271	1,271	0	137	1,956	1,956	--
Fisher's Landing Water and Sewer, LLC	0	7	7	---	1	11	11	0
Shepard Water Company	1	18	18	---	2	28	28	0
U.S. Army Yuma Proving Grounds	32	486	486	---	32	486	486	0
JRJ Partners, LLC	47	666	666	---	72	1,025	1,025	0
Cha Cha, LLC	72	1,365	1,365	---	110	2,100	2,100	0
Beattie Farms Southwest	21	722	722	---	32	1,110	1,110	0
Gila Monster Farms	196	4,646	4,833	---	363	8,183	8,500	-317
Wellton-Mohawk I.D.D.	3,155	268,531	278,000	-9,469	14,808	409,661	424,350	-14,689
BLM Permittees (Below Imperial Dam)	8	110	110	0	12	169	169	--
City of Yuma	480	14,184	15,151	-967	1,306	26,056	27,500	-1,444
U.S. Marine Corps Air Station Yuma	70	1,249	1,265	---	70	1,249	1,265	-16
Union Pacific Railroad	2	29	29	---	5	48	48	0
University of Arizona	56	897	897	---	56	897	897	0
Yuma Union High School District	6	150	150	---	9	200	200	0
Desert Lawn Memorial	2	27	27	---	3	38	38	0
North Gila Valley Irrigation District	-59	9,165	9,486	---	2,123	42,748	43,500	-752
Yuma Irrigation District	1,910	38,351	38,958	---	3,493	71,668	73,100	-1,432

WATER USER	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
Yuma Mesa I.D.D.	2,201	103,426	104,430	---	9,512	225,114	230,252	-5,138
Unit "B" I.D.D.	575	14,089	13,421	---	1,597	28,422	28,300	**122**
Arizona State Land Department - Agriculture	250	4,295	4,295	---	385	6,607	6,607	0
Ott Family	19	269	269	---	29	414	414	0
Ogram Boys' Enterprises	42	595	595	---	64	916	916	0
Fort Yuma Indian Reservation	218	3,123	3,123	---	336	4,804	4,804	0
BLM - Leased by M. Lee	10	145	145	---	16	223	223	0
Armon Curtis	9	127	127	---	14	195	195	0
Yuma County Water Users' Association	13,431	275,925	277,259	---	22,767	366,892	367,400	-508
R. Griffin	2	30	30	---	3	46	46	0
Power	5	74	74	---	8	114	114	0
Cocopah Indian Tribe (PPR No. 7)	13	184	184	---	20	283	283	0
Griffin Ranches (PPR No. 7)	5	74	74	---	8	114	114	0
Milton Phillips (PPR No. 7)	3	44	44	---	5	67	67	0
Griffin Family Ltd. Partnership (PPR No. 7)	1	17	17	---	2	26	26	0
Cocopah Indian Reservation	109	1,848	1,820	---	116	2,803	2,812	-9
Bureau of Reclamation - Yuma Area Office	14	206	206	---	14	206	206	0
Arizona Public Service Company	0	0	0	---	0	0	0	0
Gary Pasquinelli	15	209	209	---	22	321	321	0
Total Arizona	**75,947**	**2,362,153**	**2,411,029**		**127,572**	**3,231,190**	**3,307,193**	
Central Arizona Project (CAP)	49,857	1,138,553				1,138,553		
All Others	26,090	1,223,600	1,245,812			2,092,626	2,141,972	
Yuma Mesa Division, Gila Project	4,052	150,942	152,874	-1,932		339,530		
Total 242 Well Field Pumping [3]	3,309	46,420	48,129					

ARIZONA ADJUSTED APPORTIONMENT CALCULATION

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 - Reclamation (Estimated) [7]		(15,291)
Delivery of ICS (CAWCD)	up to	70,000
Total State Adjusted Apportionment		2,262,209
Excess to Total State Adjusted Apportionment		99,944
Estimated Allowable Use for CAP		**1,043,788**

[1] 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.

[2] Forecast Use incorporates CAWCD's operational schedule dated January 17, 2023.

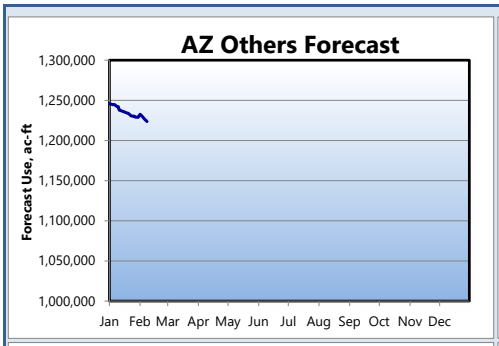
[3] In accordance with the Colorado River Water Conservation Letter Agreement 16-XX-30-W0603, Revision No. 1 (Revised Letter Agreement) between Reclamation and the Central Arizona Water Conservation District (CAWCD), pumping above the Historical Average Baseline (31,129 AF), up to 32,000 AF per year,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

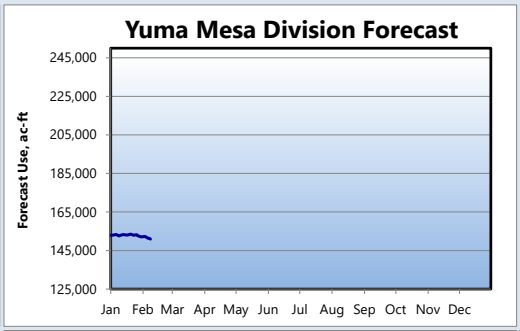
[4] In accordance with Section XI.G.2.D.1.b of the 2007 Interim Guidelines, a Tier 2 Shortage Condition will govern the operation of Lake Mead and the lower Colorado River in 2023, resulting in a 400,000 AF reduction to the state of Arizona's Colorodo River basic apportionment.

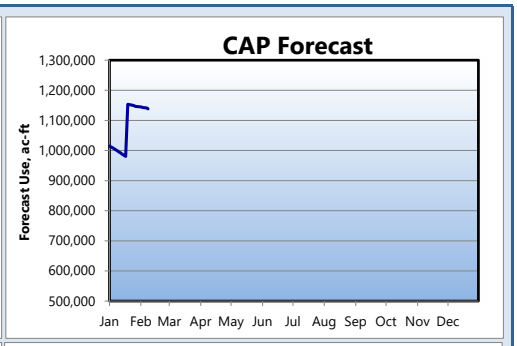
[5] In accordance with Section III.B.1.a of *Lower Basin Drought Contingency Operations* (LBOps), the state of Arizona is required to make DCP Contributions of 192,000 AF in 2023. CAWCD agrees to fulfill Arizona's DCP Contributions in accordance with Section II.3.b of the *Agreement Regarding Lower Basin 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.

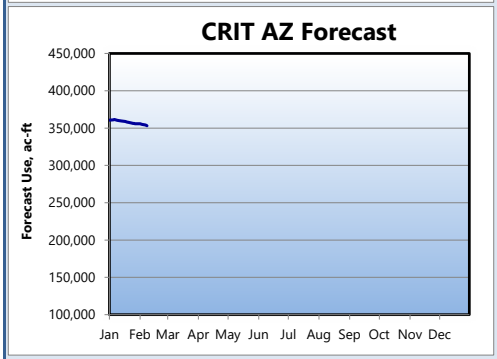
[6] The estimated amount of System Conservation Water that will be created by the City of Bullhead City pursuant to System Conservation Implementation Agreement No. 15-XX-30-W0587, as amended. This System Conservation Water will remain in Lake Mead to benefit system storage.

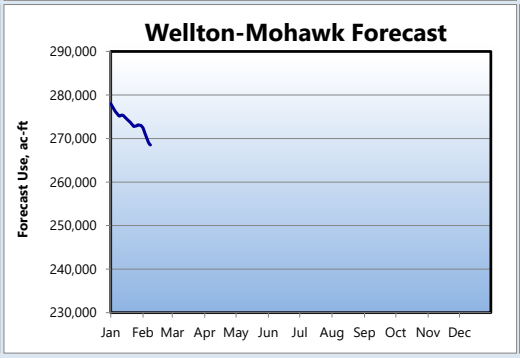
[7] The estimated amount of System Conservation Water that will be created by additional pumping from the 242 Well Field Expansion pursuant to Letter Agreement No. 16-XX-30-W0603, Revision No. 1, which will remain in Lake Mead to benefit system storage.

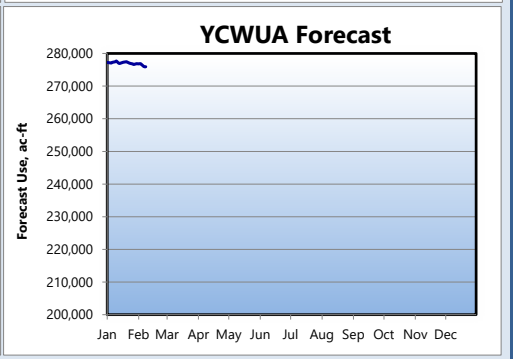












NOTES: Click on Arizona Schedules and Approvals above for incoming diversion schedules and approvals.

Feb 08, 2023 01:59:23 PM

BUREAU OF RECLAMATION

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 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
Fort Mojave Indian Reservation, CA	330	8,839	8,994	---	613	16,433	16,720	-287
City of Needles (includes LCWSP use)	113	1,605	1,605	0	159	2,261	2,261	0
PPR No. 30 (Stephenson)	1	19	19	---	2	34	34	0
PPR No. 38 (Andrade)	2	25	25	---	3	45	45	---
PPR No. 40 (Cooper)	0	6	6	---	1	10	10	---
Chemehuevi Indian Reservation	13	183	183	---	793	11,340	11,340	0
The Metropolitan Water District of Southern California [1]	53,326	1,002,648		---	53,576	1,005,185		---
Colorado River Indian Reservation, CA	306	4,380	4,380	---	508	7,258	7,258	0
Palo Verde Irrigation District	3,658	415,814	423,836	---	37,554	852,054	862,000	-9,946
PPR No. 31 (Mendivil)	0	3	3	---	0	6	6	0
Yuma Project Reservation Division	1,239	47,919	48,668	---	4,422	97,783	98,898	-1,115
Yuma Project Reservation Division - Bard Unit	---	---	---	---	2,308	50,958	51,500	-542
Yuma Project Reservation Division - Indian Unit	---	---	---	---	2,114	46,825	47,398	-573
Fort Yuma Indian Reservation - Ranch 5 (Surface Delivery)	67	1,194	1,194	---	121	2,160	2,160	0
Fort Yuma Indian Reservation - Other Ranches (Pumpers)	80	1,137	1,137	---	144	2,058	2,058	0
Yuma Island Pumpers	102	1,463	1,463	---	185	2,647	2,647	0
Imperial Irrigation District	116,109	2,596,431	2,617,800	-21,369	120,865	2,741,555	2,767,270	---
Coachella Valley Water District	20,104	382,604	389,000	-6,396	20,941	405,850	413,155	---
Other LCWSP Contractors	37	526	526	---	57	819	819	0
City of Winterhaven	4	58	58	---	6	81	81	0
Total California	**195,491**	**4,464,854**	**4,520,757**		**239,950**	**5,147,579**	**5,211,222**	

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

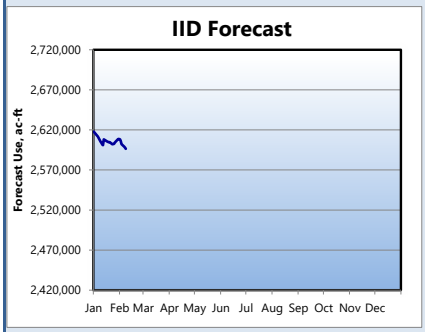
California Basic Apportionment	4,400,000
System Conservation Water - Pilot System Conservation Program [2]	(145)
System Conservation Water - PVID Fallowing Program [3]	(58,400)
Total State Adjusted Apportionment	4,341,455
Excess to Total State Adjusted Apportionment	123,399

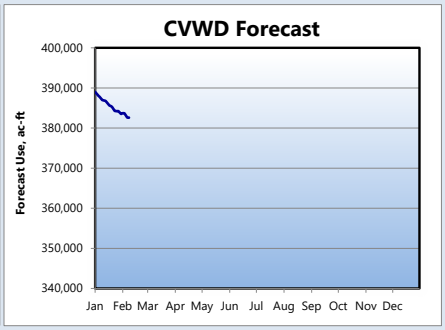
Estimated Allowable Use for MWD **879,249**

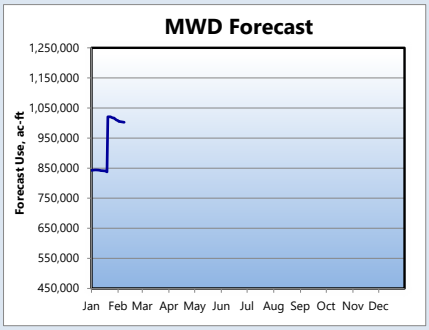
[1] Forecast Use is based on MWD's operational projected diversion of 1.023 maf.

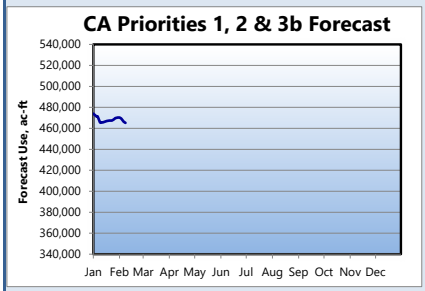
[2] System Consevation Water to be conserved by the City of Needles pursuant to System Conservation Implementation Agreement No. 15-XX-30-W0596, executed under the Pilot System Conservation Program. This water will remain in Lake Mead to benefit system storage.

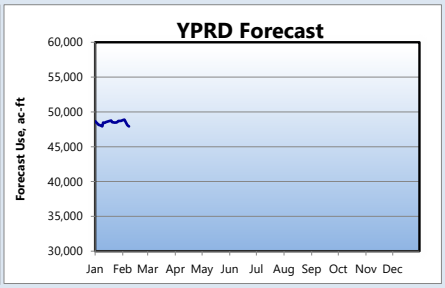
[3] The estimated amount of System Conservation Water that will be created pursuant to Funding Agreement No. 21-XX-30-W0714 (Funding Agreement). This System Conservation Water will remain in Lake Mead to benefit system storage. In accordance with the Funding Agreement, the Bureau of Reclamation intends 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* .

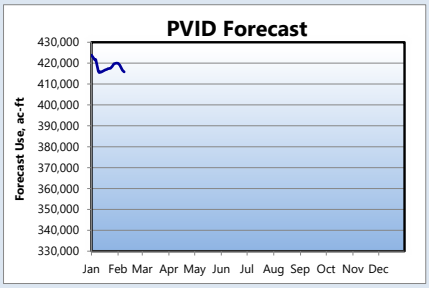












NOTES: Click on California Schedules and Approvals above for incoming diversion schedules and approvals.

Feb 08, 2023 01:59:23 PM

— BUREAU OF — RECLAMATION

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 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
Robert B. Griffith Water Project (SNWS)	34,481	444,481		---	34,481	444,481		---
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	12	177	177	---	21	300	300	0
Big Bend Water District	287	4,688	4,688	---	778	10,000	10,000	0
Fort Mojave Indian Tribe	67	4,573	4,624	---	100	6,824	6,900	-76
Las Vegas Wash Return Flows	-25,377	-231,984	-231,289	---				
Total Nevada[1]	**9,749**	**224,863**	**223,000**	**0**	**35,659**	**464,533**	**462,000**	**-76**
Southern Nevada Water System (SNWS)	9,104	212,497				444,481		
All Others	645	12,366				20,052		
Nevada Uses Above Hoover	9,395	215,602				447,709		
Nevada Uses Below Hoover	354	9,261				16,824		

Tributary Conservation (TC) Intentionally Created Surplus (ICS)

Southern Nevada Water Authority (SNWA) Creation of TC ICS (Approved)[2]	44,000

NEVADA ADJUSTED APPORTIONMENT CALCULATION

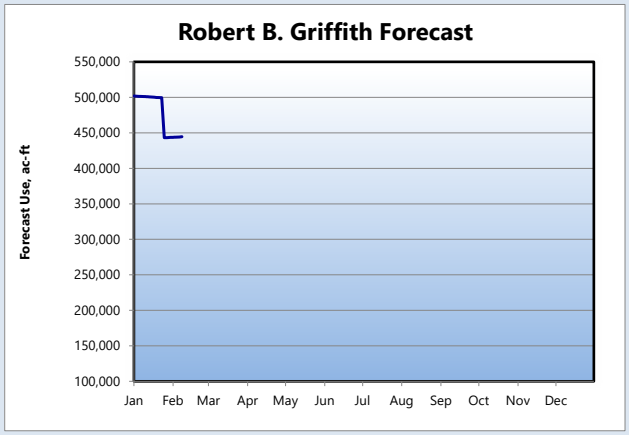
Nevada Basic Apportionment	300,000
Reduction for Tier 2 Shortage[3]	(17,000)
Creation of Extraordinary Conservation ICS - SNWA (Estimated)[4]	(58,137)
Total State Adjusted Apportionment	224,863
Excess to Total State Adjusted Apportionment	0

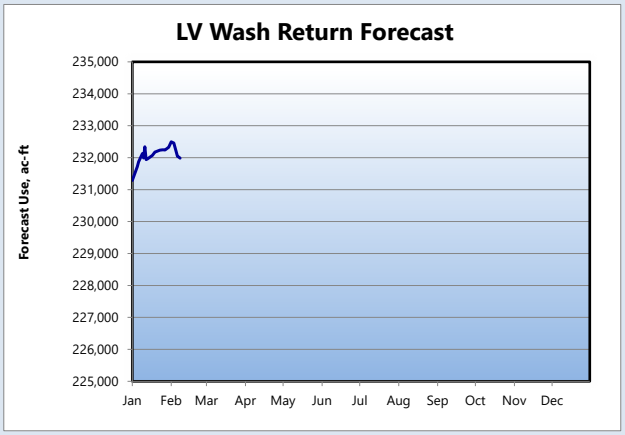
[1] The State of Nevada has been approved to consumptively use up to 283,000 AF in CY 2023. Forecast Use shown here is based on Nevada's operational projected consumptive use of 223,000 AF.

[2] 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.

[3] 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 Colorodo River basic apportionment.

[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.

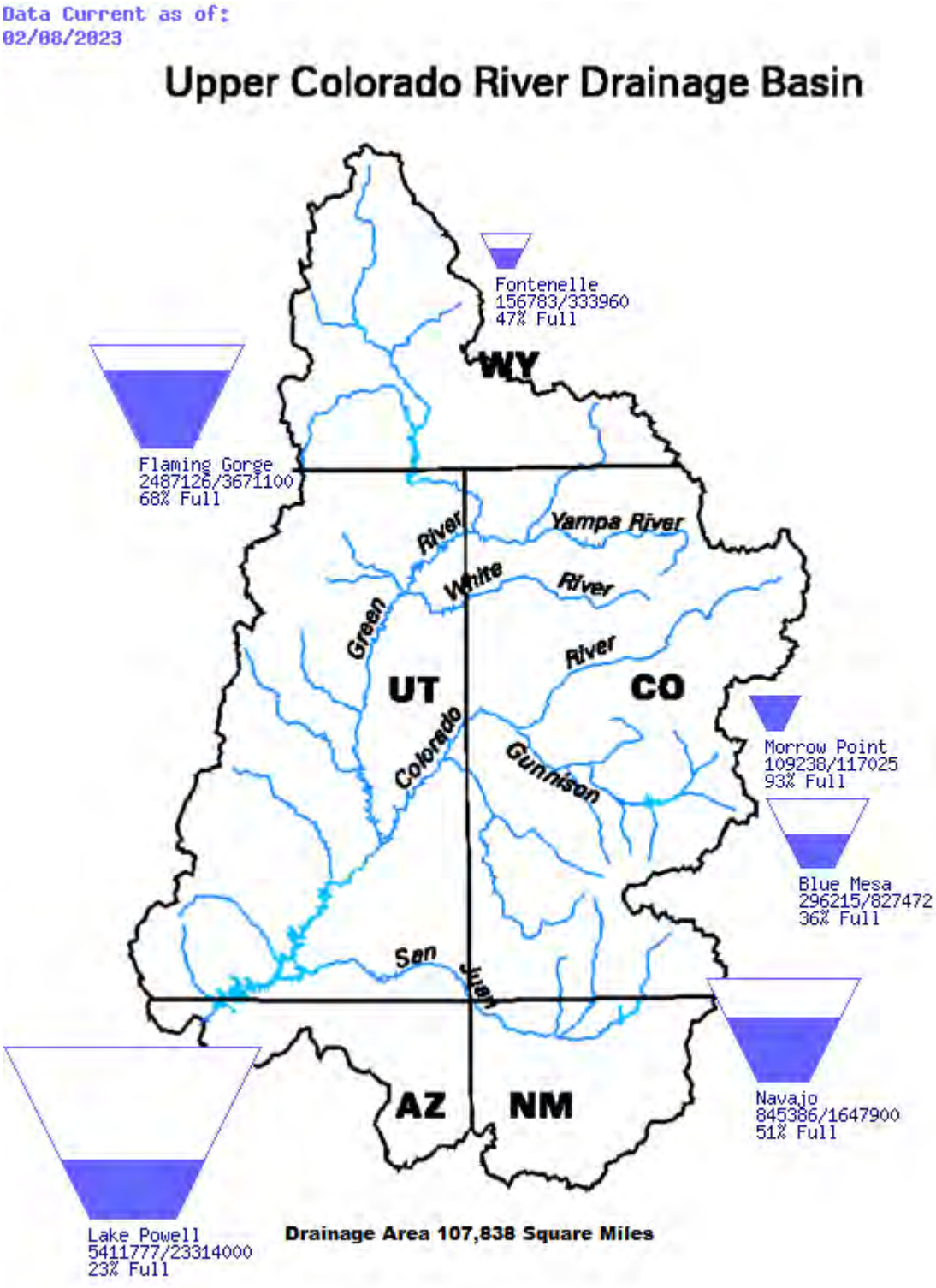




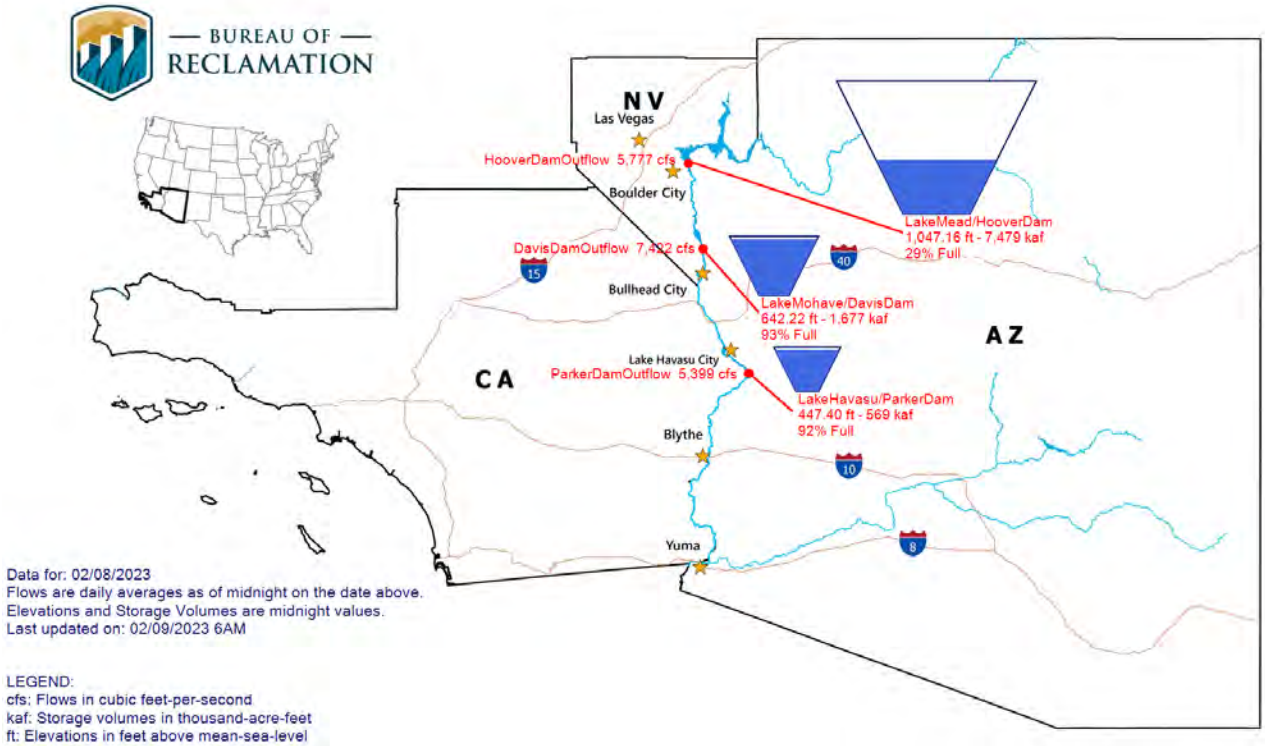
NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

Upper Colorado Region Water Resources Group

River Basin Tea-Cup Diagrams



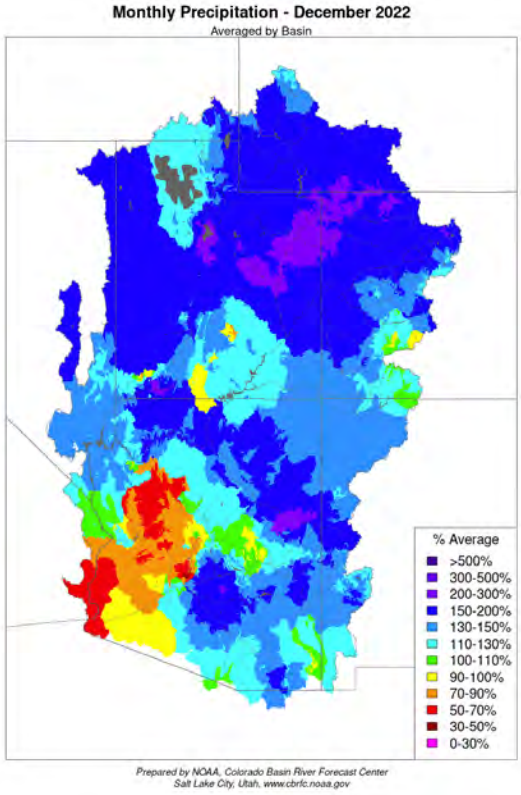
Lower Colorado River Teacup Diagram

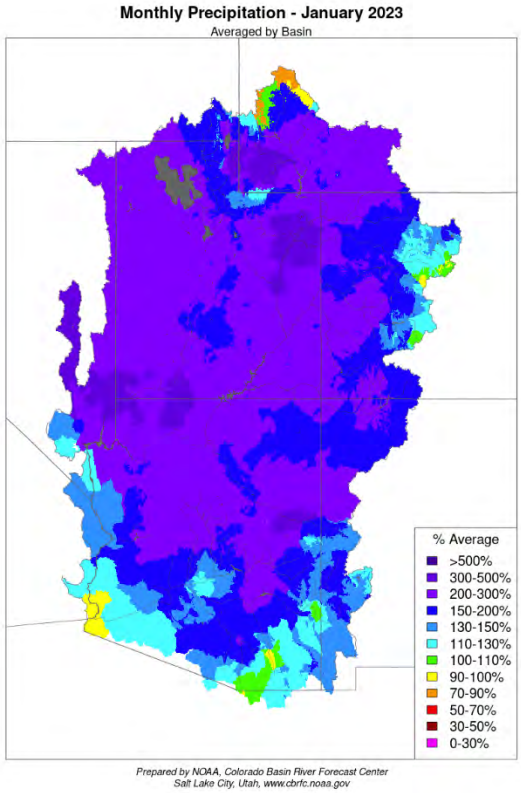


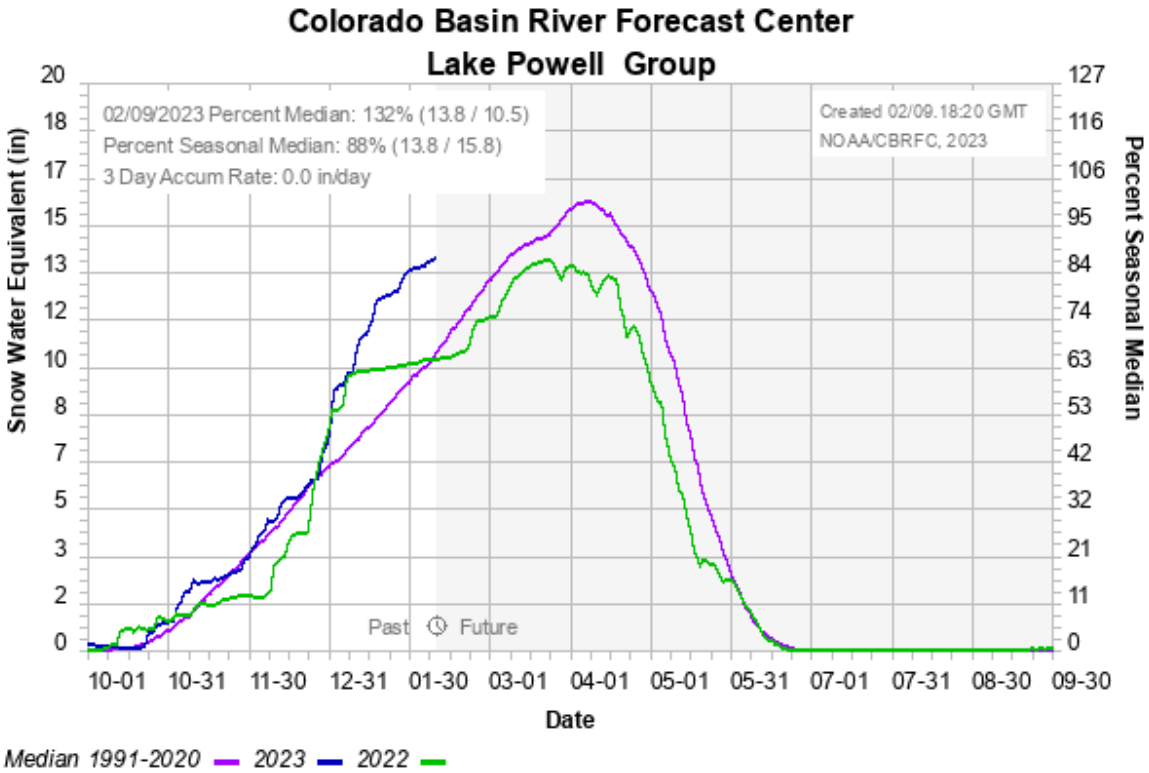
Data for: 02/08/2023
Flows are daily averages as of midnight on the date above.
Elevations and Storage Volumes are midnight values.
Last updated on: 02/09/2023 6AM

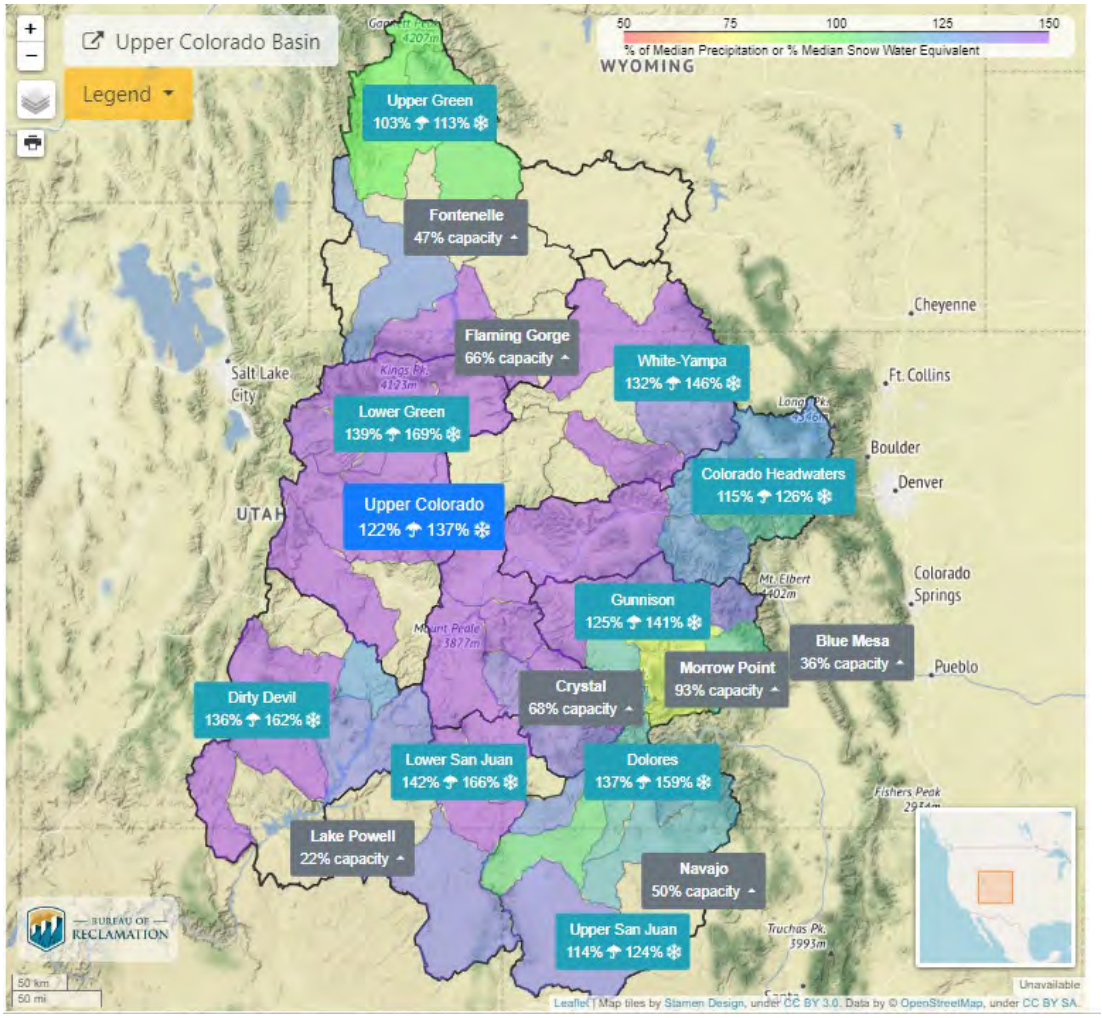
LEGEND:
cfs: Flows in cubic feet-per-second
kaf: Storage volumes in thousand-acre-feet
ft: Elevations in feet above mean-sea-level

NOAA National Weather Service Monthly Precipitation Map December 2022 and January 2023



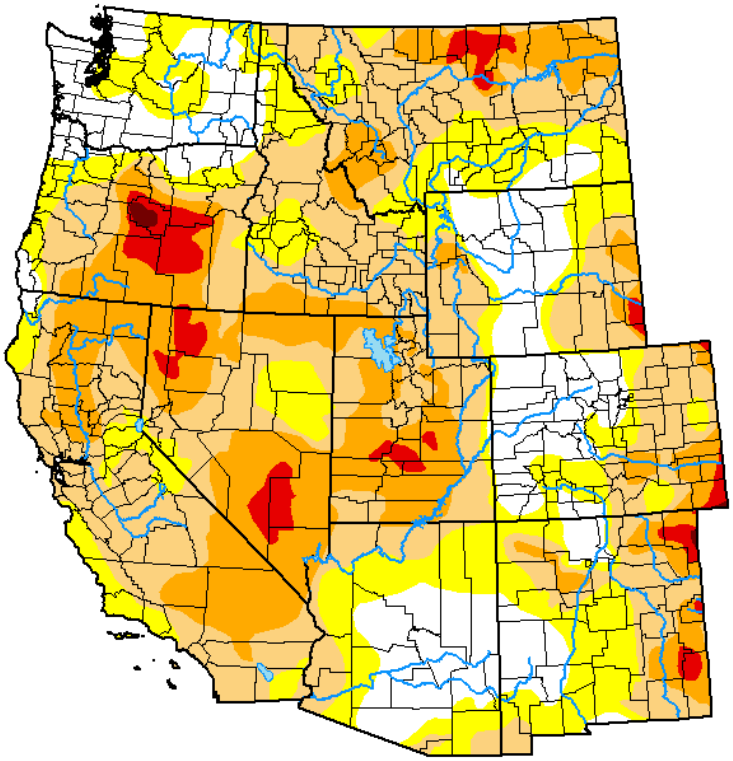



Colorado Basin River Forecast Center
Lake Powell Group
02/09/2023 Percent Median: 132% (13.8 / 10.5)
Percent Seasonal Median: 88% (13.8 / 15.8)
3 Day Accum Rate: 0.0 in/day
Created 02/09.18:20 GMT
NOAA/CBRFC, 2023
Snow Water Equivalent (in)
Percent Seasonal Median
Past
Future
Date
Median 1991-2020
2023
2022


Upper Colorado Basin
Legend
% of Median Precipitation or % Median Snow Water Equivalent
WYOMING
Upper Green
103% 113%
Fontenelle
47% capacity
Flaming Gorge
66% capacity
White-Yampa
132% 146%
Lower Green
139% 169%
Colorado Headwaters
115% 126%
Upper Colorado
122% 137%
Gunnison
125% 141%
Blue Mesa
36% capacity
Morrow Point
93% capacity
Crystal
68% capacity
Dirty Devil
136% 162%
Lower San Juan
142% 166%
Dolores
137% 159%
Lake Powell
22% capacity
Navajo
50% capacity
Upper San Juan
114% 124%
Salt Lake City
UTAH
Cheyenne
Ft. Collins
Boulder
Denver
Colorado Springs
Pueblo
BUREAU OF RECLAMATION
Leaflet | Map tiles by Stamen Design, under CC BY 3.0. Data by © OpenStreetMap, under CC BY SA.

USDA United States Drought Monitor Map

U.S. Drought Monitor
West



February 7, 2023
(Released Thursday, Feb. 9, 2023)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	18.22	81.78	59.36	24.36	3.58	0.15
Last Week *01-31-2023*	18.89	81.11	60.55	28.83	6.38	0.14
3 Months Ago *11-08-2022*	5.48	94.52	69.14	46.27	19.05	2.53
Start of Calendar Year *01-03-2023*	12.08	87.92	62.42	38.84	12.41	0.27
Start of Water Year *09-27-2022*	3.89	96.11	73.90	47.71	19.37	2.63
One Year Ago *02-08-2022*	3.89	96.11	87.92	64.07	19.29	3.23

Intensity:

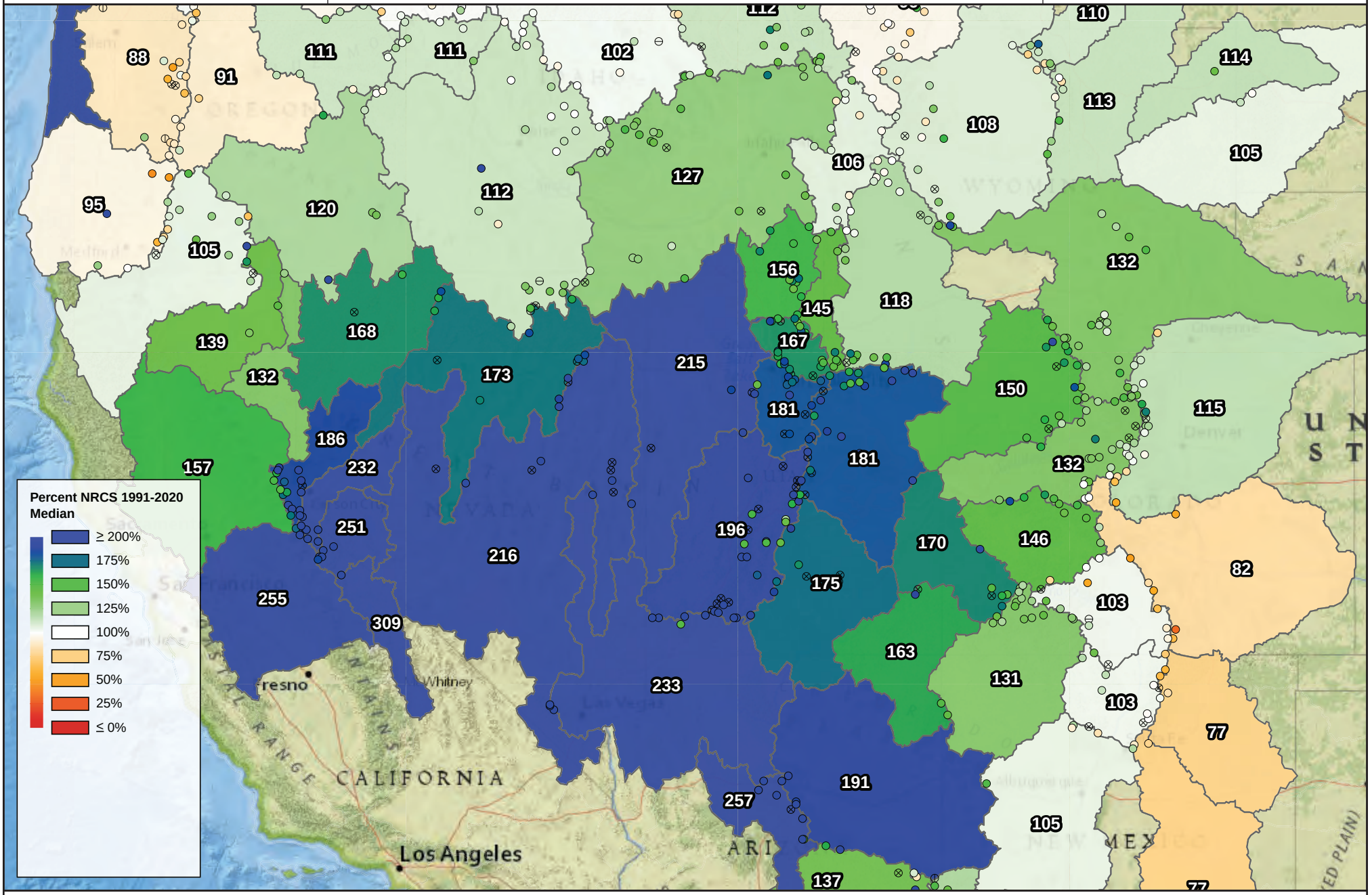
- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

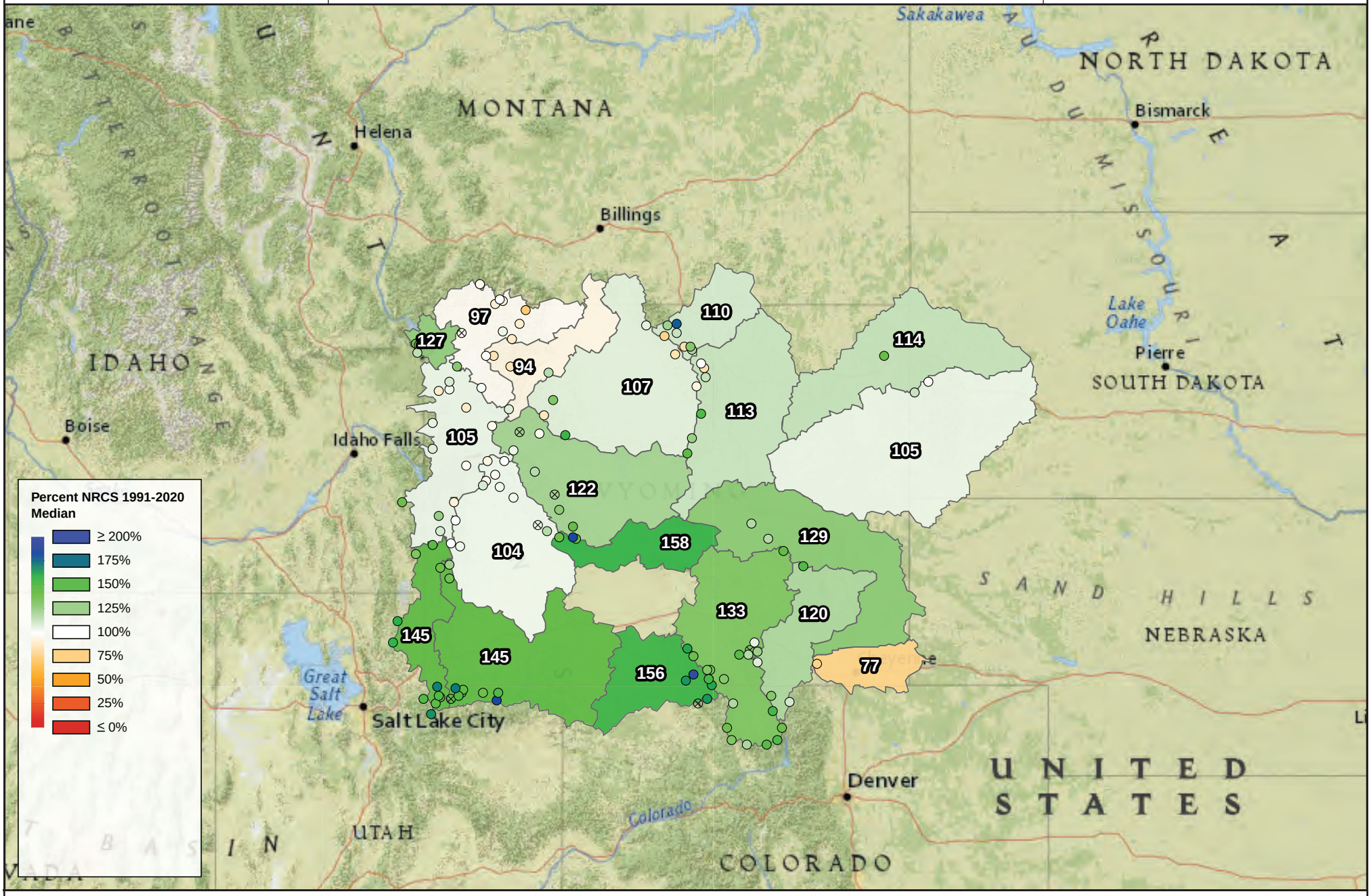
Author:
Brian Fuchs
National Drought Mitigation Center

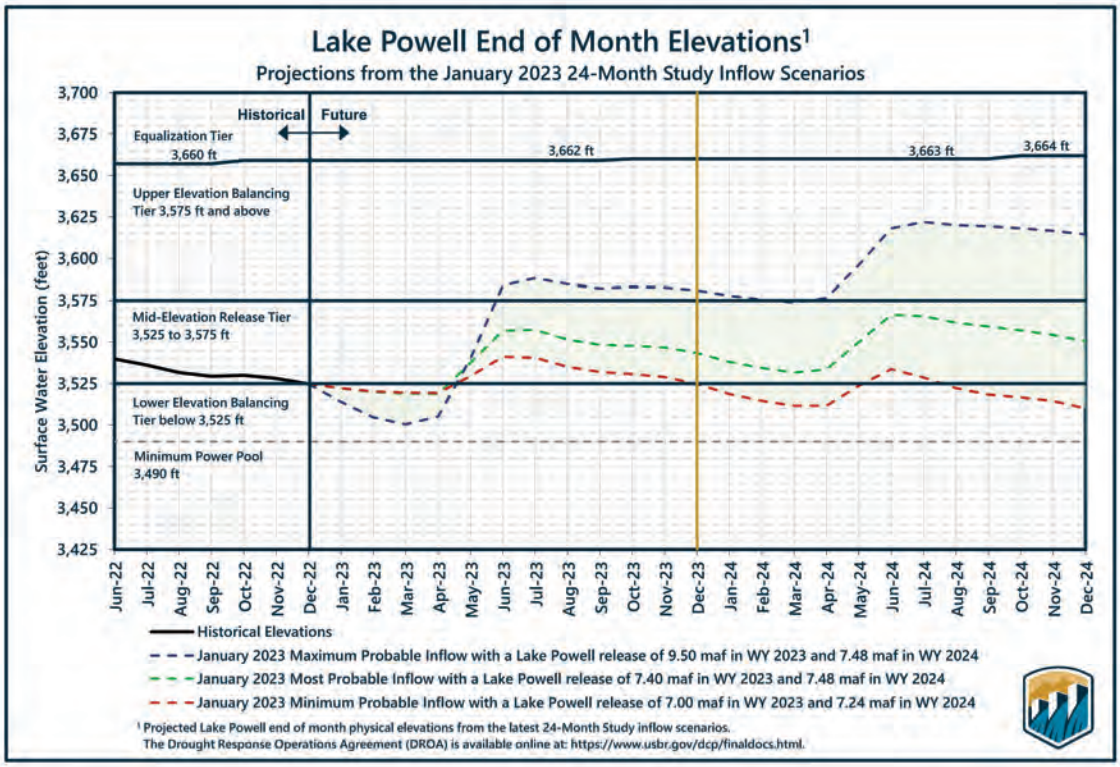
droughtmonitor.unl.edu

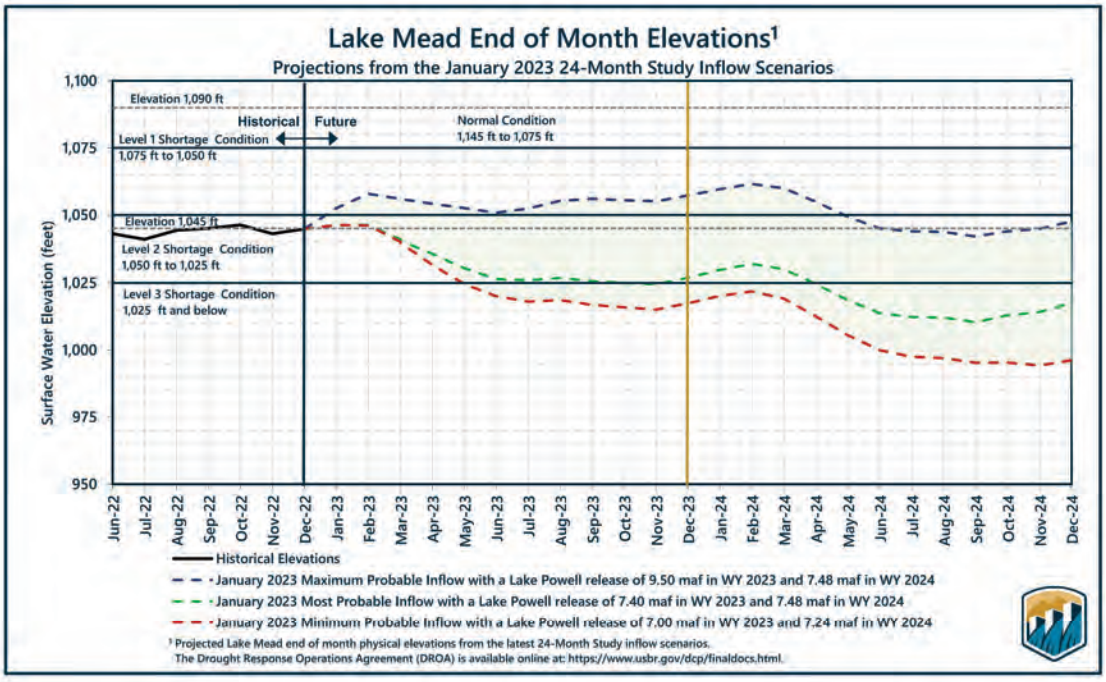
Snow Water Equivalent	Percent NRCS 1991-2020 Median	February 1st, 2023



Snow Water Equivalent	Percent NRCS 1991-2020 Median	February 1st, 2023

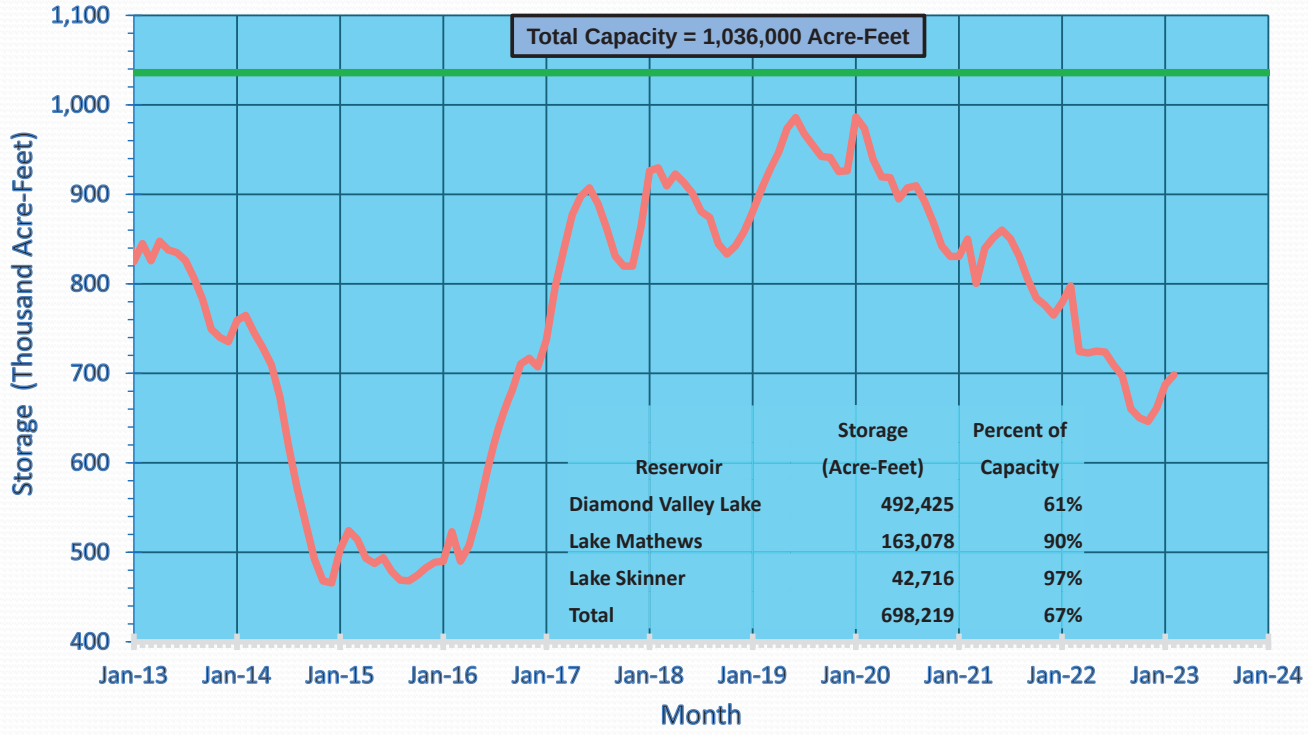



Lake Powell End of Month Elevations[1]
Projections from the January 2023 24-Month Study Inflow Scenarios
Surface Water Elevation (feet)
3,700
3,675
3,650
3,625
3,600
3,575
3,550
3,525
3,500
3,475
3,450
3,425
Historical
Future
Equalization Tier
3,660 ft
3,662 ft
3,663 ft
3,664 ft
Upper Elevation Balancing
Tier 3,575 ft and above
Mid-Elevation Release Tier
3,525 to 3,575 ft
Lower Elevation Balancing
Tier below 3,525 ft
Minimum Power Pool
3,490 ft
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Oct-23
Nov-23
Dec-23
Jan-24
Feb-24
Mar-24
Apr-24
May-24
Jun-24
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Historical Elevations
January 2023 Maximum Probable Inflow with a Lake Powell release of 9.50 maf in WY 2023 and 7.48 maf in WY 2024
January 2023 Most Probable Inflow with a Lake Powell release of 7.40 maf in WY 2023 and 7.48 maf in WY 2024
January 2023 Minimum Probable Inflow with a Lake Powell release of 7.00 maf in WY 2023 and 7.24 maf in WY 2024
[1] 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.

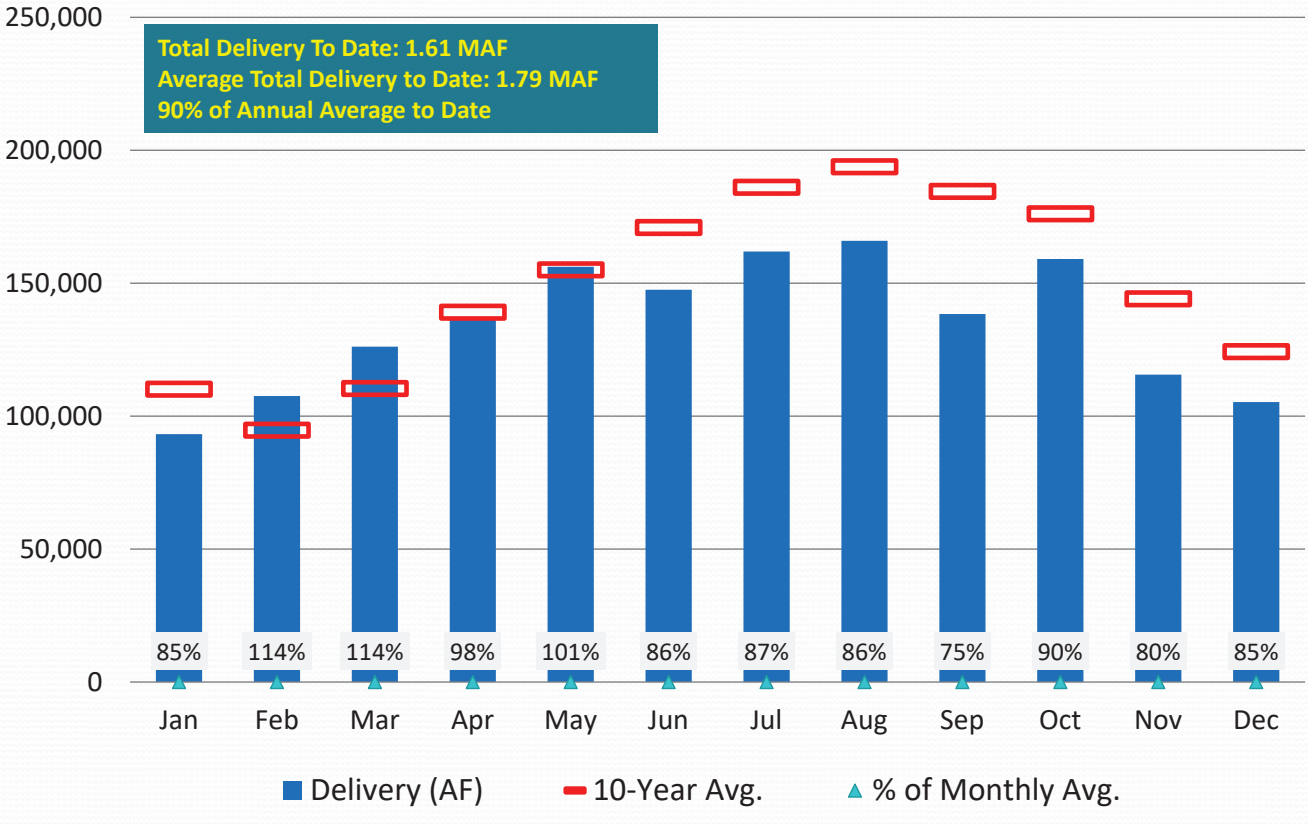

Lake Mead End of Month Elevations[1]
Projections from the January 2023 24-Month Study Inflow Scenarios
Surface Water Elevation (feet)
1,100
1,075
1,050
1,025
1,000
975
950
Elevation 1,090 ft
Historical
Future
Level 1 Shortage Condition
1,075 ft to 1,050 ft
Normal Condition
1,145 ft to 1,075 ft
Elevation 1,045 ft
Level 2 Shortage Condition
1,050 ft to 1,025 ft
Level 3 Shortage Condition
1,025 ft and below
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Oct-23
Nov-23
Dec-23
Jan-24
Feb-24
Mar-24
Apr-24
May-24
Jun-24
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Historical Elevations
January 2023 Maximum Probable Inflow with a Lake Powell release of 9.50 maf in WY 2023 and 7.48 maf in WY 2024
January 2023 Most Probable Inflow with a Lake Powell release of 7.40 maf in WY 2023 and 7.48 maf in WY 2024
January 2023 Minimum Probable Inflow with a Lake Powell release of 7.00 maf in WY 2023 and 7.24 maf in WY 2024
[1] 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.

MWD's Combined Reservoir Storage as of February 1, 2023

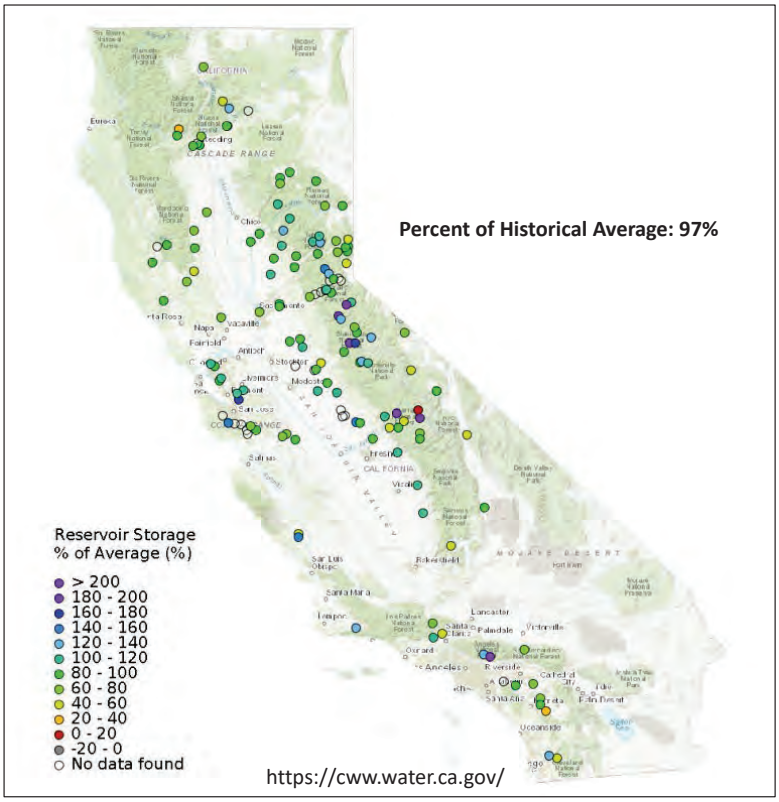
Lake Skinner, Lake Mathews, and Diamond Valley Lake



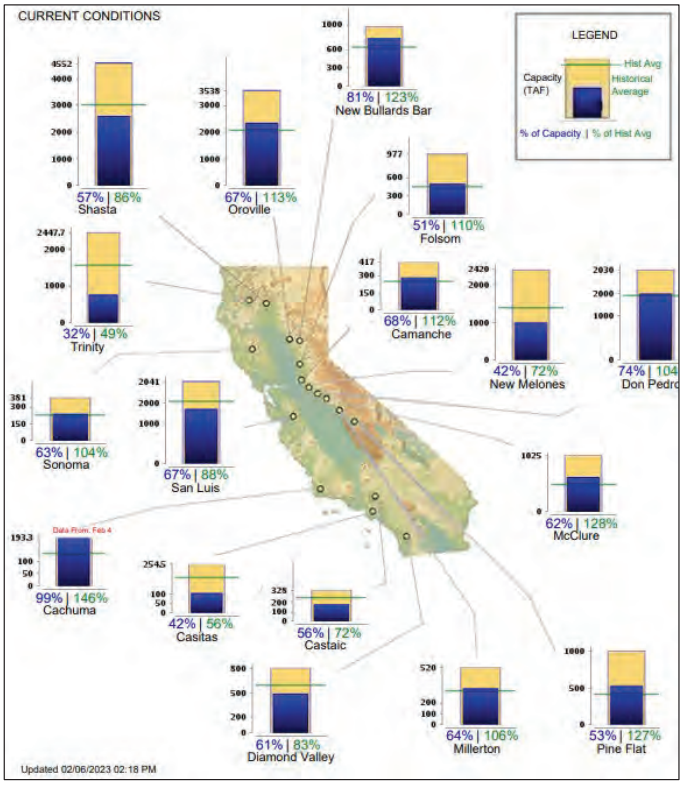
2022 Water Deliveries to Agencies (AF)



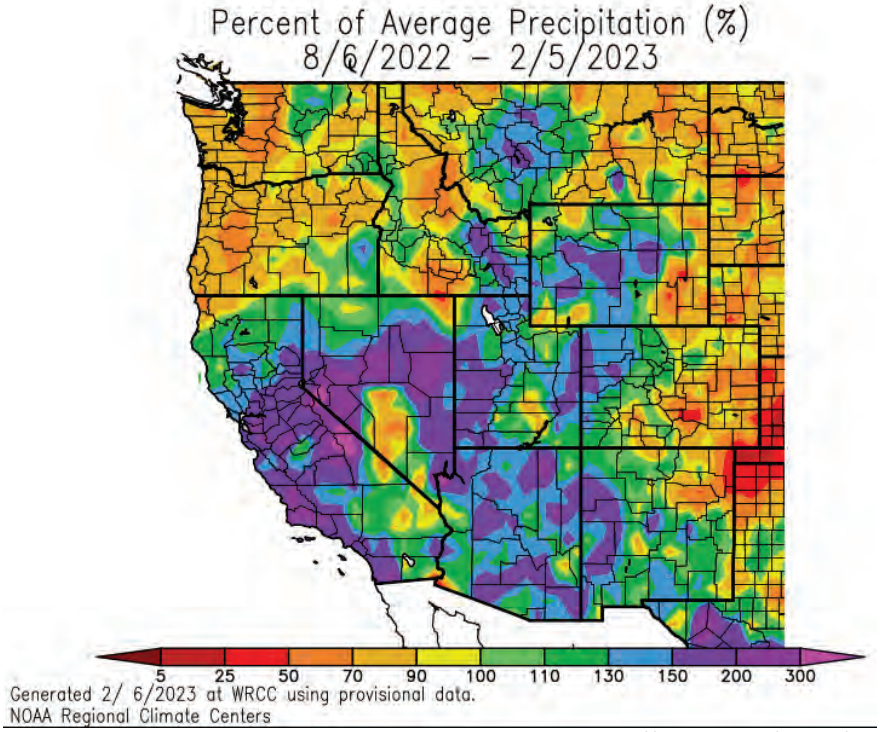
Reservoir Storage % of Average – 02/05/2023



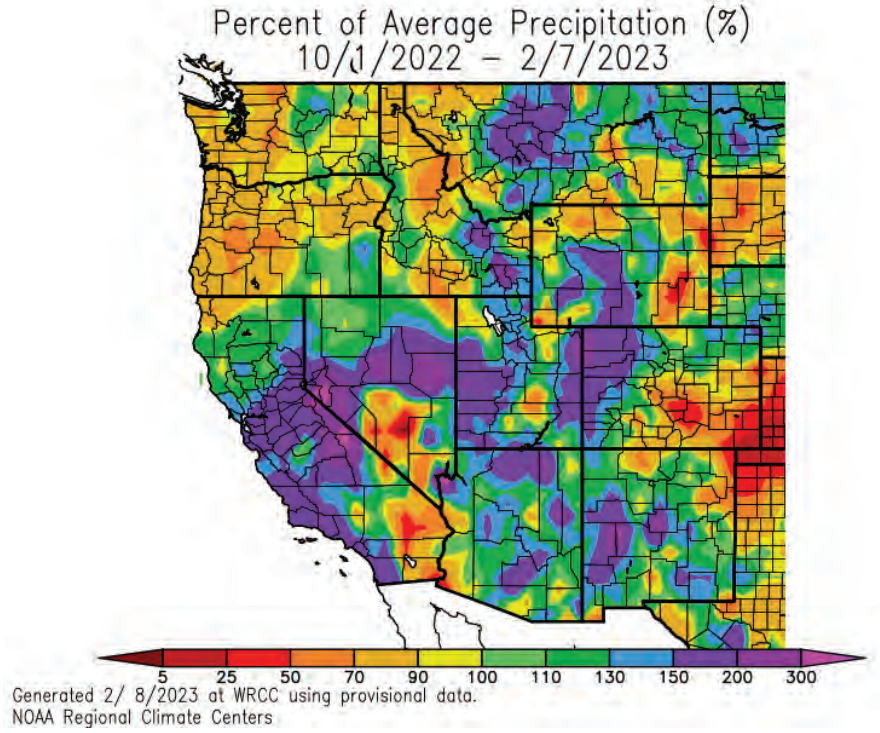
Current Reservoir Conditions



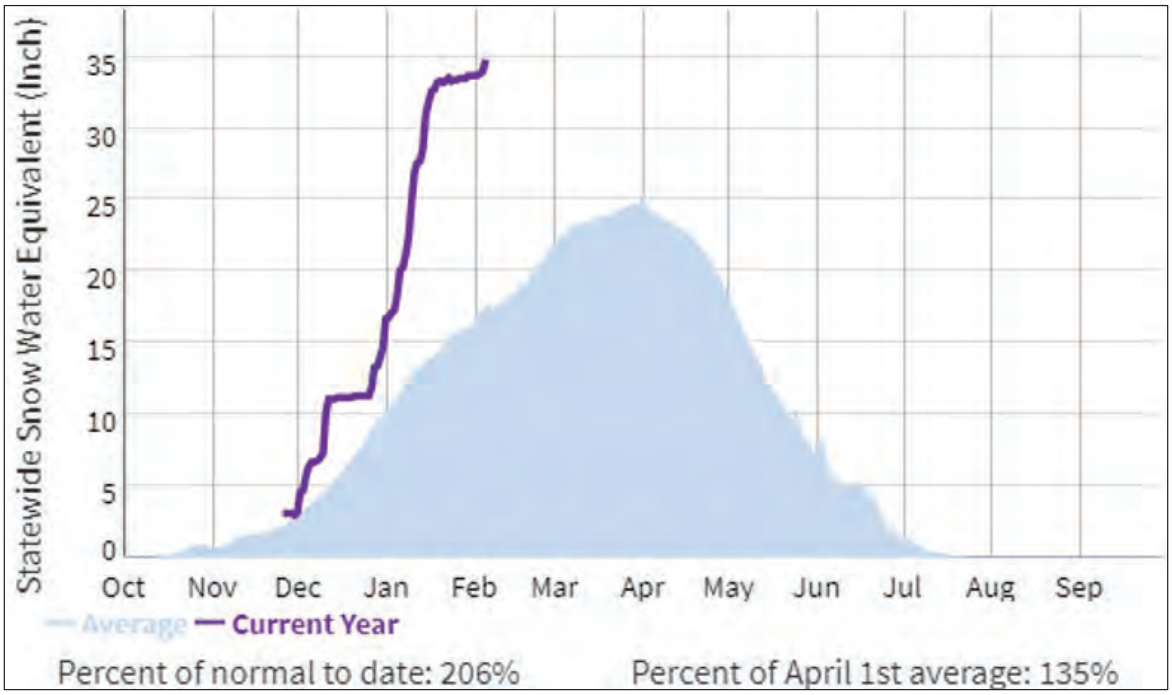
CA Statewide Precipitation – 145% of average



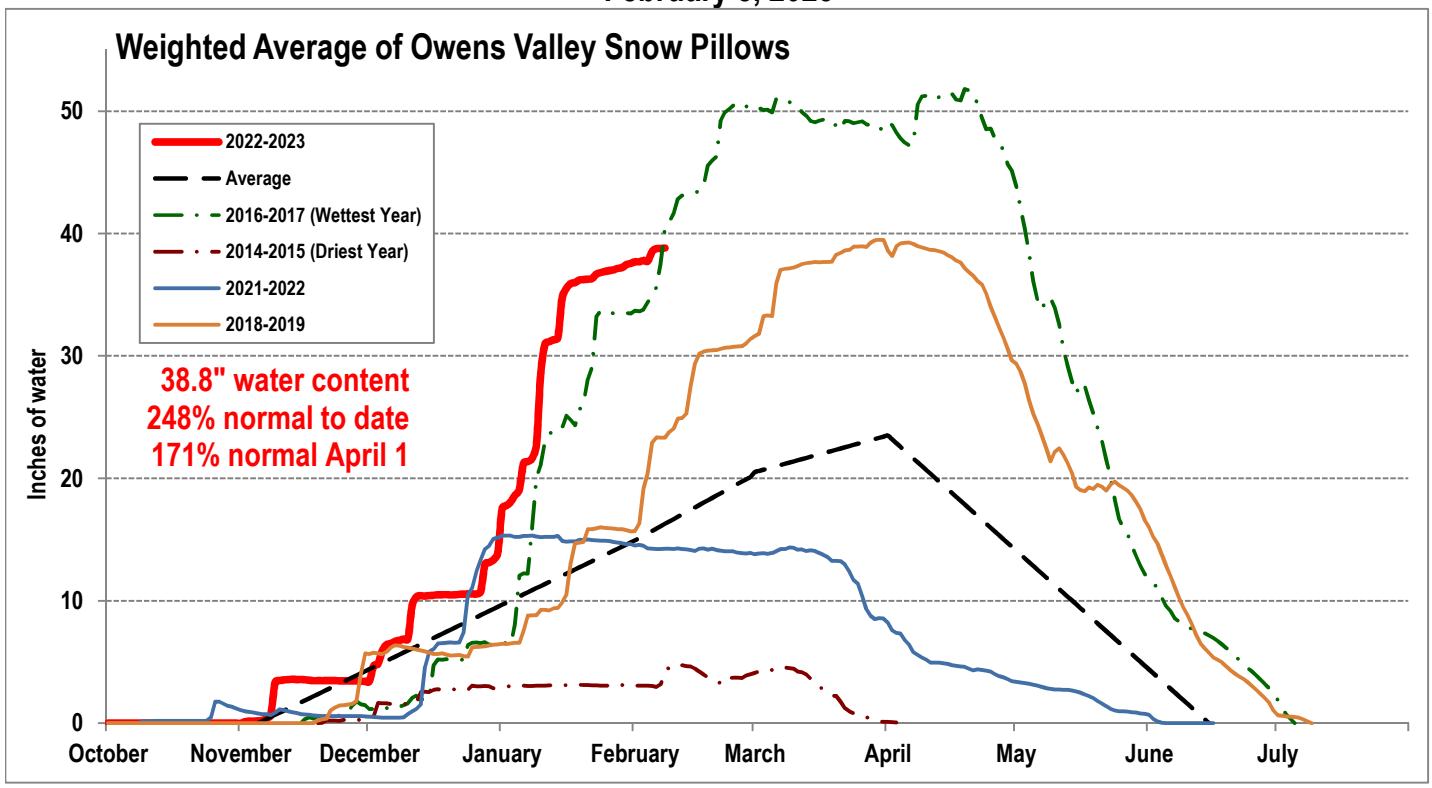
https://wrcc.dri.edu/cgi-bin/anomimage.pl?wrc6mPpct.png

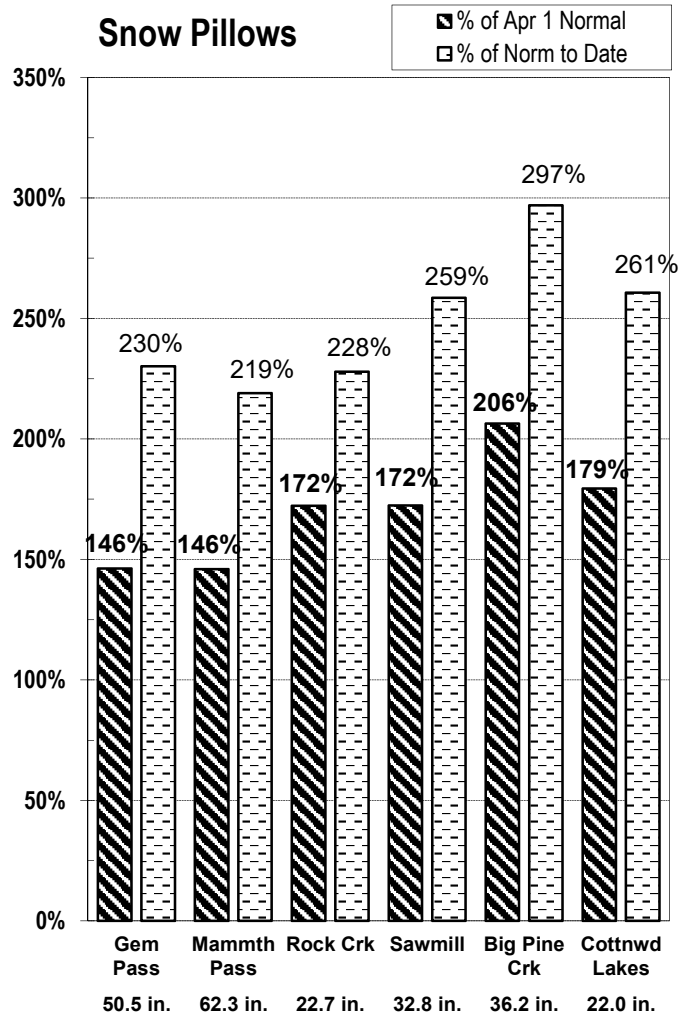


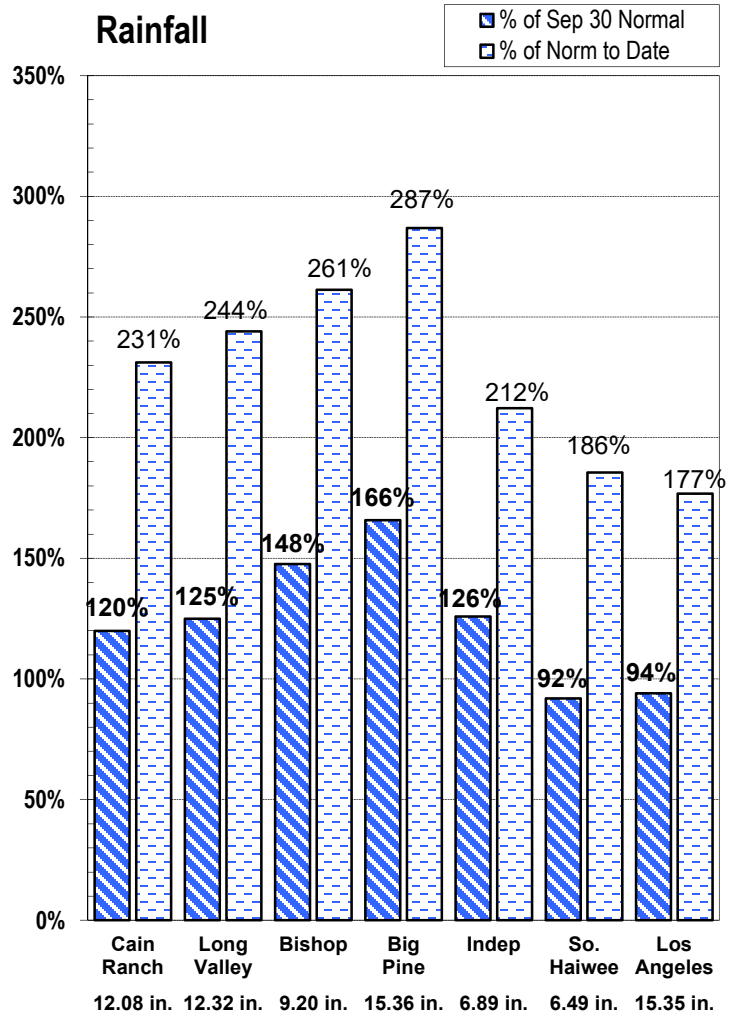
CA Statewide Snowpack Chart as of 02/05/2023



EASTERN SIERRA
CURRENT PRECIPITATION CONDITIONS
February 8, 2023







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

Colorado River Board of California

California Water Agencies Submit Colorado River Modeling Framework to Bureau of Reclamation

Proposal Outlines Constructive Approach to Achieve Necessary Water Use Reductions through 2026 to Protect Critical Infrastructure, Prioritize Public Health and Safety

California water agencies that rely on the Colorado River today proposed a modeling framework for the U.S. Bureau of Reclamation to evaluate as it considers actions to help stabilize reservoir elevations and protect critical infrastructure to ensure the Colorado River system can continue to support 40 million people, nearly 6 million acres of agriculture, and Tribes across seven states and portions of Mexico.

The modeling framework outlines a constructive approach to achieve additional water use reductions while protecting infrastructure, prioritizing public health and safety, and upholding the existing body of laws, compacts, decrees, and agreements that govern Colorado River operations (known collectively as the Law of the River). The approach builds on the California agencies' commitments announced last fall to voluntarily conserve an additional 400,000 acre-feet of water each year through 2026 to protect storage in Lake Mead and help stabilize the Colorado River reservoir system.

California's proposed framework seeks to protect Lake Mead elevation of 1,000 feet and Lake Powell elevation of 3,500 feet by modifying some parameters governing reservoir operations, maximizing the impact of existing plans and voluntary conservation actions, and increasing cutbacks if Lake Mead elevations decline. It also protects baseline water needs of communities across the West by prioritizing water supplies for human health and safety. The proposal was carefully developed to enable workable phased water use reductions and ensures protection of adequate water volumes in Lake Mead and Lake Powell.

"The alternative provides a realistic and implementable framework to address reduced inflows and declining reservoir elevations by building on voluntary agreements and past collaborative efforts in order to minimize implementation delays. California's alternative protects critical elevations and uses adaptive management to protect critical reservoir elevations through the interim period," JB Hamby, chair of Colorado River Board of California and California's Colorado River Commissioner, wrote in a transmittal letter to Reclamation.

The approach differs from a modeling proposal submitted to Reclamation on January 30 by the six other basin states. The six-state proposal would direct the majority of water use reductions needed in the Lower Basin to California water users through a new apportionment method based on "system and evaporative losses." The proposal directly conflicts with the existing Law of the River and the current water rights system and mandates cutback without providing tools to manage reductions.

For the past several months, California water users have sought a timely, practical and implementable solution with other Lower Basin users that can be implemented over the next three years to protect critical elevations in Lake Mead while longer-term changes are negotiated to update 2007 Interim

Guidelines that will expire at the end of 2026. Suggestions to fundamentally change the Law of River are appropriately addressed through this shared process to update the guidelines.

California's water agencies remain committed to working with all Colorado River basin states to take urgent, fair, and achievable action now to avoid unacceptable risks to communities, farms and economies in California and the rest of the basin.

For decades, California has been a leader in managing its Colorado River water resources and collaborating in basin-wide efforts to more effectively operate and manage the reservoir system and to incentivize water conservation as demands have increased in the face of shrinking supplies due to climate change.

In 2003, California permanently reduced its use of Colorado River water from about 5.2 million acre-feet annually to its basic apportionment of 4.4 million acre-feet, a permanent annual reduction in water use of about 800,000 acre-feet. The reduction in use resulted from implementing a combination of agricultural and urban conservation activities. Since 2003, water users in California have taken significant actions to conserve Colorado River water, adding over 1.5 million acre-feet and 20 feet of elevation of conserved water to Lake Mead since 2007. California water users committed to further conservation to bolster storage in Lake Mead through the 2019 Drought Contingency Plan. California has invested billions of dollars in urban and agricultural conservation across Southern California, through programs that reach virtually every Colorado River water user in the state.

"Twenty years ago, California adopted the largest water conservation-and-transfer agreement in U.S. history that not only supports the bulk of our nation's food system but also sustains the environment. This multi-billion-dollar conservation-focused framework – the Quantification Settlement Agreement – is the blueprint for other states to follow. California has done its part and is willing to do more, but it's time for the other states to step up and create their own conservation programs that sustain the quality of life in their communities," **said Jim Madaffer, vice chair of the Colorado River Board of California, representing the San Diego County Water Authority.**

"For over 20 years, Metropolitan has met the challenge of reducing our use of Colorado River water, and we are committed to doing more now. But we must do it in a way that does not harm half of the people who rely on the river – the 19 million people of Southern California. We must do it in a way that does not devastate our $1.6 trillion economy, an economic engine for the entire United States. We must do it in a way that can be quickly implemented, adding water to lakes Mead and Powell without getting mired in lengthy legal battles. We must do it in a way that maintains and strengthens partnerships on the river, allowing us to work together to build longer term solutions. The proposal presented today by California does all of this by equitably sharing the risk among Basin states without adversely affecting any one agency or state. The plan presented yesterday, which shut out California, does not. California knows how to permanently reduce use of the river – we have done it over the past 20 years, through billions of dollars in investments and hard-earned partnerships. We can help the entire Southwest do it again as we move forward," **said Adel Hagekhalil, general manager, Metropolitan Water District of Southern California.**

"The Colorado River – Imperial Valley's only source of water – supports far more than our rural disadvantaged community as it provides for a robust agricultural industry that feeds millions of people and provides food security for this nation. California, and particularly the Imperial Irrigation District, is

working to be part of the solution, however we also believe in upholding the Law of the River and not shouldering the burden of supply limitations for states and agencies that have outgrown their water rights. California has spent the past two decades successfully working together to resolve intra-state supply and demand imbalances to sustain the Colorado River. Since the signing of the Quantification Settlement Agreement, the largest ag-to-urban water conservation and transfer agreement in U.S. history, IID's water management programs have generated over 7.2 million acre-feet in support of the Colorado River system. Today, IID and its California partners have proposed a balanced and implementable plan that begins to address the monumental challenges we face with the ongoing Colorado River drought," **said Henry Martinez, general manager, Imperial Irrigation District.**

"Historically, CVWD and our agricultural community have invested heavily in its irrigation delivery system to minimize water loss, including canal lining projects, a closed pipe irrigation distribution system and installing drip irrigation. We have prioritized the efficient use of Colorado River water over the long term. We also took action last year with other California agencies to voluntarily identify a collection of Colorado River water conservation and reduction actions to save 400,000 acre-feet annually through 2026. We support our California partners and are committed to reaching a 7-basin state consensus on a framework for additional water use reductions through 2026," **said Jim Barrett, general manager, Coachella Valley Water District.**

"One-hundred and forty-six years ago, the original developers of our Palo Verde Valley filed and were granted the very first water rights to Colorado River water. Secured by those rights, farmers and farm workers have invested multiple generations of farm loans and hard work to produce food and fiber for consumers. Surrounding our agriculture are small rural cities that depend exclusively upon Colorado River water for their domestic supply. Farmers and landowners in Palo Verde Irrigation District want to be part of a solution to the current mismatch of supply and demand on the River in a manner that honors existing Public Law, and Administrative Law," **said Bart Fisher, president, Palo Verde Irrigation District Board of Trustees.**

"The Colorado River has been the lifeblood of the Quechan people since time immemorial, and we have a deep and abiding responsibility to be good stewards of the River – for the Tribe and its members, for the species and ecosystems that it sustains, and for the benefit of our fellow tribes and non-Indian neighbors throughout the Basin. It is why we have always fought for and will continue to defend our water. The modeling proposal submitted by the State of California to the Bureau of Reclamation for inclusion as part of its development of the SEIS reflects a meaningful effort to address the hydrologic challenges facing the Basin while respecting the senior water rights of the Tribe and others and ensuring that the Colorado can continue to exist as a living river," **said Quechan Tribal Council President Jordan Joaquin.**

Colorado River Board of California

January 31, 2023

Deputy Interior Secretary Tommy Beaudreau
Assistant Secretary for Water and Science Tanya Trujillo
Bureau of Reclamation Commissioner Camille Calimlim Touton

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

The Colorado River Board of California (CRB)[1] appreciates the opportunity to submit an alternative for the Bureau of Reclamation (Reclamation) to analyze as part of Reclamation's preparation of 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."

As described in the Notice of Intent (NOI) to prepare this SEIS, if low runoff conditions into Lake Powell and Lake Mead continue, Reclamation's ability to protect dam infrastructure, make full water deliveries, and generate hydropower could be significantly impacted and result in the need to operate Glen Canyon and/or Hoover Dam in a manner beyond the scope of the 2007 Guidelines Record of Decision (2007 Guidelines ROD). 87 FR 69043 (November 17, 2022). Any modifications made to the operations of Lake Powell and Lake Mead as part of this process — particularly in the absence of a true consensus approach — need to be consistent with applicable federal laws, interstate compacts, and decrees and provide certainty to water contractors, protection of stored Intentionally Created Surplus and public health, safety, and welfare (as determined by each state) through the interim period.

Since Reclamation published the NOI in November, California has worked with the other Colorado River Basin States in an attempt to develop a joint Framework Agreement Alternative. Unfortunately, despite numerous meetings and intensive good-faith efforts, a seven-state consensus was not reached. Therefore, California respectfully submits the attached alternative for Reclamation's consideration, modeling, and analysis. The development of alternatives is the first step of the SEIS process. California looks forward to continuing collaborative work with the Basin States,

[1] Established in 1937, the Board protects the interests and rights of the agencies and citizens of the State of California to the water and power resources of the Colorado River System. The ten-person Colorado River Board is comprised of representatives from the Coachella Valley Water District, Imperial Irrigation District, Los Angeles Department of Water and Power, The Metropolitan Water District of Southern California, Palo Verde Irrigation District, San Diego County Water Authority, California Department of Water Resources, California Department of Fish and Wildlife, and members of the public.

Reclamation, and the Interior Department to develop consensus-based approaches. California appreciates Reclamation's recognition of the need to initiate this process. Our state's proposed alternative makes a constructive effort to uphold the Law of the River while making substantial efforts to protect the Colorado River system with voluntary reductions far beyond California's legal obligations. The 40 million people, nearly 6,000,000 acres of agriculture, and 30 Indian tribes that rely on the Colorado River require us to be successful in this effort. As this process moves forward, the State of California and California's Colorado River Contractors remain committed to continuing to work with you and others across the basin to protect the system. Now is the time to step up and demonstrate leadership through action and the development of other collaborative, innovative opportunities for basin-wide solutions.

Development and Evaluation of Alternatives

California proposes the attached alternative for Reclamation to analyze as part of the SEIS. California's alternative includes actions that build on the existing Colorado River reservoir management and operations framework. The NOI identifies that Reclamation may propose modifications to Sections 2, 6, and 7 of the 2007 Guidelines ROD for 2023, 2024, and possibly through the expiration of the 2007 Guidelines in 2026. The NOI anticipates that Reclamation will analyze alternatives, including a No Action Alternative and a Reservoir Operations Modification Alternative to be developed by Reclamation as a set of actions and measures adopted under Secretarial authority pursuant to applicable federal law. Given the brief period of time before the 2007 Guidelines ROD expires, California's alternative emphasizes additional voluntary reductions in water use.

California intends through its alternative proposed modifications to the 2007 Guidelines ROD to protect Lake Mead elevation of 1,000 feet and Lake Powell elevation of 3,500 feet by discontinuing the use of operational neutrality described in the May 3, 2022 letter regarding actions to protect Lake Powell, making changes to Lake Powell operational tiers and releases, modifying shortage conditions, and other changes described in the attachment. This alternative provides a realistic and implementable framework to address reduced inflows and declining reservoir elevations by building on voluntary agreements and past collaborative efforts in order to minimize the risk of legal challenge or implementation delay. California's alternative uses adaptive management to protect critical reservoir elevations through the interim period.

California's Actions Benefitting Lake Mead

California's Colorado River Contractors committed to conserving up to an additional 1,600,000 acre-feet of Colorado River water starting in 2023 and continuing until 2026, as described in CRB's October 5, 2022 letter. California was the first state to commit to conserving specific volumes of additional water after Commissioner Touton's call for further basin-wide conservation in June 2022. The State of California and California's Colorado River Contractors appreciate the Interior Department's collaboration and partnership at the Salton Sea, which will help facilitate this additional conservation of

Colorado River water in California. In 2019, California also agreed to participate in the Drought Contingency Plan (DCP), committing to make up to 350,000 acre-feet of DCP contributions annually. Between these two commitments, California could voluntarily reduce its use of Colorado River water by up to 750,000 acre-feet annually — even though California is not required to take shortages under the 2007 Guidelines ROD. Since the 2007 Guidelines ROD was adopted, California's investments and conservation in various efforts including Intentionally Created Surplus, the 500+ Plan, and other forms of voluntary conservation raised the elevation of Lake Mead by more than 20 feet preventing Lower Basin shortage conditions for years before the first shortage was declared in 2022.

California's Quantification Settlement Agreement

Prior to 2003, California historically relied on and put to beneficial use surplus Colorado River water. As Arizona and Nevada fully developed their allocations, this surplus water was no longer available. Federal action to ensure that California reduced its use of Colorado River water to the state's legal entitlement triggered a difficult and expensive intra-state process that necessitated transfers and exchanges of Colorado River water from agricultural to urban uses through a complex set of agreements. California's 2003 Quantification Settlement Agreement (QSA), the Colorado River Water Delivery Agreement (Federal QSA), and associated agreements permanently reduced California's Colorado River water use by 800,000 acre-feet per year — even after decades of dependence on that supply by millions of urban users — through various water management programs that form the nation's largest agricultural-to-urban water conservation and transfer agreement. These agreements also include shortage sharing provisions and obligations between California water providers that could be affected by the SEIS and related modifications to the 2007 Guidelines ROD in ways that cause disproportionate and unintended consequences on these California water providers. These shortage sharing provisions in California's intrastate agreements are not well understood outside of California.

Just as the State of California was able to find ways to develop and implement intra-state agreements to drastically reduce water use and live within the state's limited Colorado River water supply, so too may the State of Arizona be required to make similar arrangements to live within its available Colorado River water supplies. While California was able to complete the QSA only after a highly contentious legal, political, and policy process between various parties driven by the threat of unilateral federal action. Twenty years later the QSA serves as an example of temporary conflict caused by scarcity leading to long-term cooperation for sustainability — a model that other basin states and Reclamation should strongly consider.

The Absence of Consensus Agreement Between States Defaults to the Law of the River

In the absence of a seven-state consensus proposal, the SEIS process and the preferred alternative should maintain existing protections to California's senior entitlements, protect stored ICS, and protect public health, safety, and welfare as

determined by each state (and particularly for disadvantaged communities with no alternative water supplies) through the interim period. The SEIS documents should address the manner in which the water demands within the states affected by a shortage declaration will be managed pursuant to the 1968 Colorado River Basin Project Act and the *Arizona v. California* consolidated decree. This approach would be comparable to the one used to develop Exhibit B contained in the 2003 Colorado River Water Delivery Agreement executed by the Department of the Interior pursuant to the Interim Surplus Guidelines.

The CRB appreciates the opportunity to provide California's alternatives for analysis in the SEIS and looks forward to working with Reclamation, the Interior Department, the Basin States, and Basin State Tribes throughout this process.

In partnership,

JB Hamby
Chairman, Colorado River Board of California
Colorado River Commissioner, State of California

ATTACHMENT 1

CALIFORNIA SEIS MODELING FRAMEWORK ALTERNATIVE

PROPOSED LAKE POWELL & GLEN CANYON DAM OPERATIONS

1. Remove Operational Neutrality (i.e., use Powell actual water surface elevation to determine release tier).

2. EQUALIZATION TIER – Operations in this Tier conducted pursuant to the 2007 Interim Shortage Guidelines (ISG) Record of Decision (ROD).

3. UPPER ELEVATION BALANCING TIER – Below Equalization Tier to 3,575'. Balancing releases range between 9.0-7.0 MAF. Potential for recovery of prior Drought Operations Agreement (DROA) releases and the WY-2022 reduced Lake Powell release volume of 480 KAF.

4. MIDDLE ELEVATION RELEASE TIER – Spans Lake Powell elevations 3,575' to 3,550'. Annual releases from Glen Canyon Dam range between 8.23-7.48 MAF. Implement up to 100 KAFY of Upper Basin Demand Management activities to create additional protection volume for Lake Powell.

5. LOWER ELEVATION BALANCING TIER – Spans Lake Powell elevations 3,550' to 3,500'. Lake Powell annual release ranges between 7.48 - 7.0 MAF, unless lower releases are necessary to keep Lake Powell above elevation 3,500'. Implement up to 500 KAF DROA releases and up to 500 KAF of Upper Basin Demand Management activities to create additional protection volume for Lake Powell to absolutely protect elevation 3,500'.

6. ≤ 3,500' – Lake Powell releases restricted to maintain absolute Lake Powell protection of elevation 3,500'.

PROPOSED LAKE MEAD & HOOVER DAM OPERATIONS

1. Remove Operational Neutrality (i.e., use Mead actual water surface elevation to determine operating condition). This will increase the frequency and volume of shortage and Lower Basin Drought Contingency Plan (DCP) contributions without the need to modify agreements.

2. At all elevations below 1,145', provide 1.0 MAFY of additional interim period protection volumes. These volumes could be achieved through voluntary or mandatory means. California has proposed to conserve 400 KAFY of this volume through voluntary actions and its water districts are developing programs to initiate this plan in 2023. Proposed allocation of the remaining volume is based

on previous negotiations among the states: 560 KAFY to Arizona and 40 KAFY to Nevada.

3. Implement reductions described in the ISG, DCP, and Minute No. 323 using the existing schedules and volumes specified in those agreements, except that stored ICS may be delivered below 1,025' to meet human health and safety requirements .

4. If Lake Mead elevations decline further, Reclamation should reduce releases from Lake Mead in addition to the above volumes as follows:
    a. ≤1,025': 150 KAFY
    b. ≤1,020': 300 KAFY
    c. ≤1,015': 500 KAFY
    d. ≤1,010': 750 KAFY
    e. ≤1,005': 950 KAFY

    These reductions should be applied using existing authorities or implemented through additional voluntary compensated conservation agreements.

5. If these actions are insufficient, Lake Mead releases should be further restricted in order to preserve elevation 1,000'. Utilize the existing framework of the "Law of the Colorado River" and Priority System to deliver available supply to Present Perfected Rights, Federal Reserved Rights, and other senior water rights until available annual supply exhausted. If additional water is required to meet human health and safety requirements, stored ICS water may be released below 1,000'. Facilitate development of intrastate partnerships and/or temporary transfers to meet outstanding HHS needs if contractor's alternative water supplies are insufficient.

6. If necessary to keep Lake Mead above elevation 1,000', consider utilization of a periodic release (e.g., 250-500 KAF) from Lake Mohave to assist in meeting the annual U.S./Mexico Water Treaty delivery obligation.

Table 1: Proposed Lower Basin Reductions

Lake Mead Elevation	Baseline Reductions (ISG, DCP, Minute 323) (KAF)	Additional 1.0 MAF below 1,145' (KAF)	Additional Protection Volumes (KAF)	Cumulative Protection Volumes (KAF)
1,145	-	1,000	-	**1,000**
1,090	241	1,000	-	**1,241**
1,075	613	1,000	-	**1,613**
1,050	721	1,000	-	**1,721**
1,045	1,013	1,000	-	**2,013**
1,040	1,071	1,000	-	**2,071**
1,035	1,129	1,000	-	**2,129**
1,030	1,188	1,000	-	**2,188**
1,025	1,375	1,000	150	**2,525**
1,020	1,375	1,000	300	**2,675**
1,015	1,375	1,000	500	**2,875**
1,010	1,375	1,000	750	**3,125**
1,005	1,375	1,000	950	**3,325**
1,000*	1,375	1,000	950	**3,325**

*Additional reductions would be implemented to prevent Lake Mead from declining below elevation 1,000'.

Colorado River Basin State Representatives of
Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming

January 31, 2023

The Honorable Tanya Trujillo
Assistant Secretary, Water & Science
U. S. Department of the Interior
Washington, DC 20240

The Honorable Camille Calimlim Touton
Commissioner
Bureau of Reclamation
Washington, DC 20240

Re: Notice of Intent to Prepare a Supplemental Environmental Impact Statement

Dear Assistant Secretary Trujillo and Commissioner Touton:

Consistent with the Department of the Interior (Interior), Bureau of Reclamation's (Reclamation) November 17, 2022, *Notice of Intent To Prepare a Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations For Lake Powell and Lake Mead* (Notice), 87 FR 69043 (November 17, 2022), the undersigned Governors' Representatives submit this set of modeling assumptions for an alternative to be evaluated as a potential consensus-based set of actions consistent with the purpose and need set forth in the Notice (Consensus-Based Modeling Alternative or CBMA).

We ask that Reclamation model and evaluate CBMA impacts in the Draft Supplemental Environmental Impact Statement (SEIS) to be issued pursuant to the National Environmental Policy Act of 1969 (NEPA) before identifying a preferred alternative. The CBMA will promote NEPA's goal of fostering more informed decision-making. Therefore, we request that Reclamation advance the CBMA for further evaluation in the NEPA process for comparative purposes. We recognize that impediments may ultimately preclude the CBMA from being incorporated into a consensus-based set of actions to guide the operation of Glen Canyon and Hoover Dams.

Negotiations to implement actions contemplated by this CBMA, both by and between the undersigned and by and between other necessary parties, have not yet been completed, and in many cases have not yet begun. Accordingly, the States and water users expressly reserve their rights under applicable law, including, but not limited to, the Law of the River as broadly defined, and this submittal is not intended to be and shall not be construed in any way as a waiver of any such rights.

EXECUTIVE SUMMARY

The Notice anticipates that alternatives would make specific modifications to Lake Powell and Lake Mead operations governed by the Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead ('07 Guidelines) to prevent Lake Powell and Lake Mead from falling to critically low elevations impacting water delivery or power production from either reservoir in 2023 and 2024. In particular, Reclamation anticipates that alternatives will propose revisions to reduce annual Lake Powell release volumes governed by Sections 6.C. (Mid-Elevation Release Tier) and

6.D. (Lower Elevation Balancing Tier) of the ’07 Guidelines to protect Glen Canyon Dam to ensure the deliverability of water downstream and power production. The Notice further anticipates that alternatives would provide for increased Lower Division State (Arizona, California, and Nevada) delivery reductions when Lake Mead is below elevation 1050 (’07 Guidelines Section 2.D.1.b.) or 1025 (’07 Guidelines Section 2.D.1.c.).[1]

As more fully set forth below, the CBMA includes the elements anticipated by Reclamation’s Notice. In addition to revising the specific ’07 Guidelines provisions referenced in the Notice, the CBMA assesses 1.543 million acre-feet (maf) per year of reductions among all Lower Basin Contractors when Lake Mead is below elevation 1145 for the protection of critical infrastructure (Infrastructure Protection Volumes, hereinafter referred to as IPV). The undersigned believe implementation of the CBMA would protect Glen Canyon Dam infrastructure, water deliveries, and power production, and adequately mitigate the risk that either Lake Powell or Lake Mead reaches dead pool.

LAKE POWELL OPERATIONS

Reduced releases at Glen Canyon Dam would be accomplished by modeling operations under Sections 6.C. and 6.D. of the ’07 Guidelines as follows:

1. Raise the lower elevation of the Mid-Elevation Release Tier (MERT) from elevation 3525 to elevation 3550 and fix the annual release volume in the MERT at 7.48 maf.

2. Raise the upper elevation of the Lower Elevation Balancing Tier (LEBT) from elevation 3525 to elevation 3550 and fix the annual release at 7.0 maf without balancing releases.

3. Reduce releases as necessary to protect elevation 3500.

LAKE MEAD OPERATIONS

Reduced deliveries from Lake Powell must be coupled with reduced deliveries from Lake Mead or Lake Mead’s existing storage will be quickly depleted. The CBMA incorporates the following modeling adjustments to the ’07 Guidelines and to elevation-dependent Drought Contingency Plan (DCP) contributions required under the Lower Basin Drought Contingency Plan Agreement Dated May 20, 2019, and the incorporated LBOps, to reduce Lake Mead outflows:

1. When Lake Mead is below 1145, Infrastructure Protection Volumes (IPV) consisting of evaporation and system losses in the amount of 1.543 maf are apportioned among all Contractors (as such term is defined in Section XI.F.9. of the ’07 Guidelines) in accordance with the methodology outlined in Attachment 1, hereto.

2. Section 2.D.1.a. – no changes.

3. Section 2.D.1.b. – no longer applicable (see 4. below).

[1]References to reservoir elevations throughout this correspondence are to January 1 most probable elevations as predicted by the preceding August 24-month study.

4. Section 2.D.1.c. – This provision, involving "Tier 3" shortages below elevation 1025, is moved up to elevation 1050 (i.e., elevation 1025 is replaced with elevation 1050), such that Arizona is apportioned 2.32 maf at elevation 1050 and below, and Nevada is apportioned 280,000 at elevation 1050 and below.

5. Arizona, California, Nevada, and Mexico would make DCP contributions in the amounts set forth in Table 1 of the LBOps as if Lake Mead is at or below elevation 1025 when the actual elevation of Lake Mead is at or below 1050. This would require for years when Lake Mead's elevation is below 1050 feet DCP Contributions from Arizona in the amount of 240,000 acre-feet, from California in the amount of 350,000 acre-feet, and from Nevada in the amount of 10,000 acre-feet. To maintain parity and alignment of operations during those same years, Mexico would contribute 150,000 acre-feet towards Mexican Water Reserve (under the Binational Water Scarcity Plan of Minute 323).

6. In addition to the above, reductions at elevation 1030 and below and elevation 1020 and below are also part of this CBMA as follows:

    a. At elevation 1030, a 250,000 acre-feet apportionment reduction in addition to all reductions at higher elevations that shall be apportioned 93,000 acre-feet to Arizona, 10,000 acre-feet to Nevada, and 147,000 acre-feet to California.

    b. At elevation 1020, a 200,000 acre-feet apportionment reduction in addition to all reductions at higher elevations that shall be apportioned 75,000 acre-feet to Arizona, 8,000 acre-feet to Nevada, and 117,000 to California.

    c. Additional reductions as necessary to protect elevation 1000.

Lake Powell and Lake Mead cannot be further diminished without unacceptable risk to the Colorado River System. Accordingly, to satisfy the Notice's purpose and need, any preferred alternative must be sufficiently certain that system storage is maintained without reliance upon remote or speculative actions by third parties.

PARALLEL ACTIVITIES

The undersigned recognize that modifying the '07 Guidelines is an important piece of the puzzle that might be formulated to protect and maintain the Colorado River's ability to support 40,000,000 people in the Basin. However, other methods that help secure the water supply of the Basin have been proposed by Reclamation and others. These additional actions should be pursued with alacrity and in parallel with the operational changes contemplated by the SEIS.

One such action is beneficial use definitions and determinations under 43 C.F.R. Part 417 (Procedural Methods for Implementing Colorado River Water Conservation Measures with Lower Basin Contractors and Others). Each industrial, municipal, and agricultural user should be held to the highest industry standards in handling, using, and disposing of water; there is precious little water left to waste.

The Lower Colorado River Multi-Species Conservation Program provides Endangered Species Act compliance for operations of the Lower Colorado River, including water deliveries and hydropower. The actions contemplated in the preferred alternative will likely necessitate expanded compliance for lower Lake Mead elevations and reduced deliveries to all water users, including reductions to only those delivery volumes necessary to protect elevation 1,000 in Lake Mead. It is imperative this compliance moves swiftly and in parallel with this SEIS.

In addition to limiting releases from Glen Canyon Dam when Lake Powell drops below elevation 3550, measures to increase flows into Lake Powell may be needed to help protect water delivery infrastructure and hydropower operations. Accordingly, at appropriate elevations in the modified LEBT, there are parallel complementary actions that are not within the scope of this federal action. However, a reasonable range of their impacts, as further described below, should inform the modeling effort. Those actions include operations pursuant to the Drought Response Operations Agreement (DROA) and additional Upper Division State (UDS) considerations.

DROA planning and operations, including recovery, are conducted consistently with the DROA and existing authorities.[2] The CBMA includes assumptions regarding DROA releases from zero to 500,000 acre-feet per DROA Year (May 1 – April 30), which will conform to the DROA and its implementing documents and will be made only to help protect Lake Powell elevation 3500 feet.

Additional UDS considerations:

1. Hydrologic shortages are involuntary reductions in consumptive water use due to the lack of physical and legal availability of water. Hydrologic shortages occur to varying degrees annually and on a regular basis. Though hydrologic shortage quantification is complex and unique to each sub-basin each year, it should be estimated to inform this SEIS process using the best available science.

2. Voluntary contributions are voluntary reductions of consumptive use approved by the UDS to help protect elevations in Lake Powell for the duration of this SEIS. Voluntary contributions are generated from programs that result in reductions in consumptive use, such as the System Conservation Pilot Program, an Upper Basin Demand Management Program (if established), or similar actions. Voluntary contribution volumes will likely vary widely based on hydrologic conditions.

Finally, the SEIS should include modeling for the reconciliation of the 480,000 acre-feet withheld by the Secretary in Lake Powell in 2022, without making a final determination.

INCLUSION OF MEXICO

Mexico has been a progressive and dependable partner to the United States and Colorado River water users within the United States even as the worsening supply/demand imbalance has depleted storage within the system. In 2017's Minute 323 to the "United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande" signed February 3, 1944 ("1944 Water Treaty") for example, the United States and Mexico agreed on the "importance of aligning operations for

[2] 2019 Colorado River Drought Contingency Plan Authorization Act (Pub. L. 116-14).

both countries" and the need for their respective "governments and stakeholders to seek mechanisms to avoid reaching critically low reservoir elevations." Glen Canyon dam's infrastructure is currently threatened by significantly reduced inflows over the past two decades, in turn threatening to make deliveries to users in the Lower Basin difficult or impossible. We recognize that the Record of Decision will not determine actions regarding Mexico, and any participation shall be coordinated through the U.S. Section of the International Boundary and Water Commission. However, it is critical to consider the potential impacts of a range of actions including Mexico's participation.

Accordingly, this CBMA and Attachment 1 hereto contemplate continued alignment of operations for users in both countries. Specifically, for modeling purposes, Mexico is allocated approximately 356,000 acre-feet of IPV reductions when Lake Mead's elevation is below 1145, Mexico's shortage volume and Mexico's Water Reserve savings under Minute 323 is moved to Tier 3 along with the U.S. Contractors any time Lake Mead's elevation is below 1050.

TERM

The Notice anticipates operational changes in 2024 but indicates that a selected alternative may "inform potential operations in the 2025 and 2026 operating years." To protect the system through the expiration of the '07 Guidelines, the undersigned suggest that any preferred alternative be sufficiently robust, even under very dry hydrology, to maintain Lake Powell at elevation 3500 and Lake Mead at elevation 1000 through at least 2026 or the establishment of new guidelines. The NEPA evaluation should similarly be robust enough to avoid a further supplementation process for years 2025 and 2026.

RESERVATION OF RIGHTS

By providing this CBMA, we do not waive any rights, including any claims or defenses, we may have or that may accrue under any existing federal or state law or administrative rule, regulation, or guidelines, including without limitation the Colorado River Compact of 1922, the Boulder Canyon Project Act, the Mexican Water Treaty of 1944, the Upper Colorado River Basin Compact of 1948, the Consolidated Decree of the U.S. Supreme Court in *Arizona v. California*, the Colorado River Storage Project Act of 1956, the Colorado River Basin Project Act of 1968, and any other applicable provision of federal law, rule, regulation, or guideline, including the Administrative Procedure Act. Any failure by the undersigned to address specific aspects of the SEIS, shall not be construed as an endorsement or an admission with respect to any factual or legal issue for the purposes of any future legal, administrative, or other proceeding. Moreover, we reserve the right to provide further comments and engage with Reclamation as it proceeds with subsequent phases of the SEIS process.

CONCLUSION

We appreciate the opportunity to provide this Consensus Based Modeling Alternative for Reclamation's review within its SEIS process. While Reclamation is preparing the draft SEIS, we commit to continue to work with Reclamation on the CBMA and any additional development and refinement.

We recognize that over the past twenty-plus years there is simply far less water flowing into the Colorado River system than the amount that leaves it, and that we have effectively run out of storage to deplete. Accordingly, we will continue to work together and with the federal government, water users,

Basin Tribes, non-governmental organizations, and other Colorado River stakeholders to reach consensus on how best to share the burden of protecting the system from which we all derive so many benefits.

Sincerely,

Thomas Buschatzke
Governor's Representative
State of Arizona

Rebecca Mitchell
Governor's Representative
State of Colorado

John J. Entsminger
Governor's Representative
State of Nevada

Estevan Lopez
Governor's Representative
State of New Mexico

Gene Shawcroft
Governor's Representative
State of Utah

Brandon Gebhart
Governor's Representative
State of Wyoming

cc: David M. Palumbo, Deputy Commissioner – Operations, Bureau of Reclamation
Reclamation 2007 Interim Guidelines SEIS Project Manager, Upper Colorado River Basin Region
Via email: CRinterimops@usbr.gov

Attachments

Attachment 1 - Distribution of Infrastructure Protection Volumes

The modelling assumptions for the Consensus Based Modelling Alternative (CBMA) should allocate Infrastructure Protection Volumes (IPV) and additional reductions among Contractors in the Lower Basin and Mexico using the following method. Please consult with Arizona and Nevada's technical representatives for details or questions.

1. A Contractor's recent Historical Baseline Consumptive Use (Historical Baseline), representative of non-shortage conditions, will be determined in the following manner:
    a) Compute baseline consumptive use for each Contractor as its 3-year average consumptive use for the 2019-2021 period.
    b) Any approved (intrastate forbearance) conservation activities, including ICS creation, and system conservation should be added to consumptive uses for each year.

2. Once Lake Mead operating conditions and associated reductions are determined in accordance with the 2007 Interim Guidelines and DCP, Historical Baseline shall be modified to reflect shortage and DCP conditions on the Central Arizona Project, Southern Nevada Water Authority and the Metropolitan Water District of Southern California (CAP/SNWA/MWD) consumptive use. Using the shortage schedules, compute the total shortage assigned to each State as the sum of the 2007 Interim Guidelines and DCP. Compute the adjusted CAP/SNWA/MWD entitlement by subtracting the total state shortage from their respective entitlement. DCP contributions being satisfied with stored ICS shall not be included in this calculation.

3. Historical Baseline shall be modified based upon the water available for consumptive use in the upcoming year (Modified Historical Baseline). *For example, if Nevada is taking 20,000 acre-feet (af) of shortage reductions and 10,000 af of DCP contributions, the historical baseline shall be adjusted such that Nevada is not being assessed an IPV charge for more water than is available to Nevada in the coming year (270,000 af).* If the Historical Baseline is less than the Modified Historical Baseline, carry the Historical Baseline forward.

4. Below elevation 1145' System losses will be assessed as follows:
    Reach 1 Lee's Ferry to Hoover Dam (580,000 af)
    Reach 2 Hoover Dam to Davis Dam (193,000 af)
    Reach 3 Davis Dam to Parker Dam (329,000 af)
    Reach 4 Parker Dam to Imperial Dam (365,000 af), and
    Reach 5 Imperial Dam to the NIB (76,000 af)

5. For each reach, the Contractors that rely on the reach to store and/or transmit water deliveries would share proportionally in the system loss for the reach based on their fraction of the total water deliveries within the reach as modified for the upcoming year.

6. The system loss reduction shall be applied to the anticipated consumptive use for the year in which reductions will be applied. Anticipated consumptive use shall be based on the Modified Historical Baseline.

7. Between elevations 1030' and 1020' additional reductions will be assessed pro rata to Contractors' remaining allocations in each State as follows:
   Arizona (93,000 af), Nevada (10,000 af), and California (147,000 af)

8. Below elevation 1020' additional reductions will be assessed pro rata to Contractors' remaining allocations in each State as follows:
   Arizona (168,000 af), Nevada (18,000 af), and California (264,000 af)

A table of the anticipated Lower Basin and state level reductions is included below. Because past consumptive use, ICS, shortage, and DCP obligations all impact the IPV, these are estimates that should be updated and refined with the help of Reclamation staff.

Lower Basin Totals
(all reductions in 1000 acre-feet)

Tier	Elevation	IG	DCP	IPV	Add'l Reductions	Total
Tier 0	1090-1075	0	241	1,543	0	1,784
Tier 1	1075-1050	383	230	1,543	0	2,156
Tier 2a	1050-1045	625	750	1,543	0	2,918
Tier 2b	1045-1040	625	750	1,543	0	2,918
Tier 2c	1040-1035	625	750	1,543	0	2,918
Tier 2d	1035-1030	625	750	1,543	0	2,918
Tier 2e	1030-1025	625	750	1,543	250	3,168
Tier 3a	1025-1020	625	750	1,543	250	3,168
Tier 3b	1020-1015	625	750	1,543	450	3,368
Tier 3c	1015-1000	625	750	1,543	450	3,368

		Arizona					Nevada					California					Mexico				
Tier	**Elevation**	**IG**	**DCP**	**IPV**	**Add'l Reductions**	**Total**	**IG**	**DCP**	**IPV**	**Add'l Reductions**	**Total**	**IG**	**DCP**	**IPV**	**Add'l Reductions**	**Total**	**IG**	**DCP**	**IPV**	**Add'l Reductions**	**Total**
Tier 0	1090-1075	0	192	408	0	600	0	8	17	0	25	0	0	766	0	766	0	41	351	0	392
Tier 1	1075-1050	320	192	387	0	899	13	8	18	0	39	0	0	782	0	782	50	30	356	0	436
Tier 2a	1050-1045	480	240	374	0	1,094	20	10	19	0	49	0	350	816	0	1,166	125	150	335	0	610
Tier 2b	1045-1040	480	240	374	0	1,094	20	10	19	0	49	0	350	816	0	1,166	125	150	335	0	610
Tier 2c	1040-1035	480	240	374	0	1,094	20	10	19	0	49	0	350	816	0	1,166	125	150	335	0	610
Tier 2d	1035-1030	480	240	374	0	1,094	20	10	19	0	49	0	350	816	0	1,166	125	150	335	0	610
Tier 2e	1030-1025	480	240	369	93	1,182	20	10	19	10	59	0	350	813	147	1,309	125	150	343	0	618
Tier 3a	1025-1020	480	240	369	93	1,182	20	10	19	10	59	0	350	813	147	1,309	125	150	343	0	618
Tier 3b	1020-1015	480	240	364	168	1,252	20	10	19	18	67	0	350	810	264	1,424	125	150	350	0	625
Tier 3c	1015-1000	480	240	364	168	1,252	20	10	19	18	67	0	350	810	264	1,424	125	150	350	0	625

* All values are in 1000 acre-ft