



February 1, 2024

NOTICE OF TOUR AND REGULAR MEETING OF THE COLORADO RIVER BOARD OF CALIFORNIA

Colorado River Board of California will host a tour. To attend the tour, you must submit your request to crb@crb.ca.gov by 5:00 p.m. on Tuesday, February 6, 2024.

Lower Colorado River Multi-Species Conservation Program (LCR MSCP) Site Tour

Date: Wednesday, February 14, 2024
Time: **9:00 AM – 12:00 PM**
Place: Palo Verde Irrigation District (PVID) Headquarters
180 W 14th Ave,
Blythe, CA 92225

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

Board Meeting

Date: Wednesday, February 14, 2024
Time: **1:00 PM**
Place: PVID Board Room
180 W 14th Ave,
Blythe, CA 92225

The Colorado River Board of California welcomes any comments from members of the public pertaining to items included on this agenda and related topics. Members of the public may provide comments in the following ways: (1) Oral comments can be provided at the beginning of each board meeting; and (2) Public comments may be submitted by electronic mail, addressed to the board's Chairman, J.B. Hamby, at crb@crb.ca.gov and will be accepted up until 5:00 p.m. on February 12, 2023. Please note, written submissions will be read aloud at the public comment period to the extent they fit within the five-minute time limit.

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



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

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



LCR MSCP TOUR AGENDA

Wednesday, February 14, 2024 — 9:00 AM

The Colorado River Board of California will host a tour of current and potential LCR MSCP habitats in the Palo Verde and Cibola Valleys, which will depart from PVID's headquarters at 9:00 a.m.

REGULAR MEETING AGENDA

Wednesday, February 14, 2024 — 1:00 PM

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 13, 2023, Board meeting (**Action**)

SPECIAL PRESENTATION ON LOWER COLORADO RIVER MULTI-SPECIES CONSERVATION PROGRAM AND POTENTIAL HABITAT ACQUISITION

REPORTS

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



EXECUTIVE SESSION¹

OTHER BUSINESS

8. Organizational Assessment for the Colorado River Board of California

FUTURE AGENDA ITEMS & ANNOUNCEMENTS

ADJOURNMENT

Next Scheduled Board Meeting

Date:	Wednesday, March 13, 2024
Time:	10:00 AM
Place:	Palm Desert, CA

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

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

A meeting of the Colorado River Board of California (Board) was held on Wednesday, December 13, 2023, at the Paris Las Vegas, 3655 S Las Vegas Boulevard, Las Vegas, NV, 89109.

Board Members and Alternates Present:

Gloria Cordero (MWD)	Jeanine Jones (DWR Designee)
David De Jesus (MWD Alternate)	Jim Madaffer, Vice Chairman (SDCWA)
Gina Dockstader (IID Alternate)	Peter Nelson (CVWD)
Dana B. Fisher, Jr. (PVID)	David R. Pettijohn (LADWP)
John B. Hamby, Chairman (IID)	Frank Ruiz (Public Member)
Eric Heidemann (SDCWA Alternate)	Jack Seiler (PVID)
Jordan Joaquin (Public Member)	

Board Members and Alternates Absent:

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

Others Present:

Steven Abbott	Justina Gamboa-Arce
Kim Adamson	Alyson Gould
Nick Bahr	Emily Guerin
Heather Barz	Geoff Halbrook
Melissa Baum-Haley	Christopher Harris
Anthony Bianco	Mark Hartney
Jerry Butkiewicz	Tom Havens
Robert Cheng	Alex Heide
Michael Cohen	Joanna Hoff
Dennis Davis	Elliot Howard
Dan Denham	Ned Hyduke
Matthew Diserio	Steve Kasower
JR Echard	Marnie Kremer
Ray Face	Cynthia Kurtz
Kelley Gage	Larry Lai

Victoria Llorc
Timothy Lynch
Felicia Marcus
Tana McCoy
Brian McNeece
Aaron Mead
Dylan Mohamed
Yuanyuan Myint
Jessica Neuwerth
G. Patrick O'Dowd
David Osias
Michael Pacheco
Shana Rapoport
David Rheinheimer
Brad Robinson
Shanti Rosset

Jon Rubin
Abby Schneider
Alexi Schnell
Tina Shields
Darren Simon
Ed Smith
Jay Tanner
Gary Tavetian
Sara Tucker
Charles Vandyke
Richard L. Vasquez
Meena Westford
Tony Willardson
Jennifer Yachnin
Jerry Zimmerman
Dee Zinke

CALL TO ORDER

Chairman Hamby announced the presence of a quorum and called the meeting to order at 11:12 a.m.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

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

REMARKS FROM U.S. SENATOR ALEX PADILLA

Senator Alex Padilla addressed the Colorado River Board via video. Senator Padilla thanked California's Colorado River agencies for their leadership on Colorado River water issues, noting that California was the first state to commit to voluntary water reductions during the interim period. Senator Padilla congratulated California on the signature of several interim period conservation agreements. Senator Padilla urged California's water users to remain united and to continue working with partners across the Basin in resolving the challenges ahead.

Chairman Hamby thanked the Senator and his office for the comments.

CALIFORNIA WATER IN THE 21ST CENTURY: LEADING THROUGH RESILLIENCY

Deputy Director Neuwerth presented an overview of historical and ongoing efforts within California to meet its water needs. Deputy Director Neuwerth noted that, while California has a relatively large allocation of Colorado River water, the state also has the largest population in the Basin, with approximately 20 million people within California that rely on Colorado River water. Overall, the Lower Basin is home to approximately 75% of the Basin's population, and the consumptive use is not proportional to this large population. This has required creative thinking and significant effort to move water among users when necessary.

Deputy Director Neuwerth reported that California had to begin transfers and conservation programs earlier than any other state, and California has been in an era of limitations for decades. Deputy Director Neuwerth reported that California began initiating water transfers among users back in the 1980s, and now has transfers that reach almost all water users, including the Quantification Settlement Agreement (QSA) transfers and the Palo Verde Irrigation District (PVID) fallowing program, which regularly fallows up to 30% of PVID's acreage. Deputy Director Neuwerth played a video commemorating the twentieth anniversary of the QSA, which was signed in 2003.

Deputy Director Neuwerth noted that, although the QSA is one of the biggest programs in California, it's far from the only activity California's water users are undertaking to conserve water.

MEMBER AGENCY AND PUBLIC MEMBER REPORTS

San Diego County Water Authority (SDCWA)

Vice Chairman Madaffer stated that his presentation would demonstrate how SDCWA and its member agencies have invested in water reliability and collaboration with partners in the Colorado River Basin over that last three decades. He reported on the 20th anniversary of the QSA, noting that IID did a great job honoring the anniversary at the last CRB meeting in El Centro, California. He stated that the QSA stabilized water supplies on the Colorado River with the nation's largest ag-to-urban conserved water transfer between the SDCWA and IID. He added that under the QSA, SDCWA and other QSA partners have funded conservation in the Imperial Valley that has saved hundreds of thousands of acre-feet of water and has done so in a way that allows farming to thrive and addresses the environment and the Salton Sea.

Vice Chairman Madaffer reported that conservation supported by SDCWA has generated over 2 million acre-feet (MAF) over the last 20 years. He added that SDCWA's investment with the state of California for canal lining projects has conserved over 1 MAF of water since 2003. He stated that the QSA was established to be mutually beneficial and today, 20 years later, it stands as a model on how to collaborate on a mutually beneficial voluntary conservation program and flexible management of the river. He added that the QSA is a model as we enter into 2026.

Vice Chairman Madaffer reported that SDCWA has been able to reduce its demand for Colorado River water by improving water efficiency use standards. He stated that since the 1990s, SDCWA has been a statewide leader in sponsoring legislation to improve both indoor and outdoor water use efficiency, noting that the agency sponsored the legislation that mandated low flow toilets in the entire State of California as well as many other leading-edge conservation measures. He stated that during this same time period, SDCWA invested in a suite of water use efficiency programs and initiatives with the help of its partners, including the MWD, to offer major rebates to replace turf, high efficiency clothes washers and toilets, and water saving irrigation systems. He added that SDCWA also provides free resources including landscape workshops, which are very popular through the WaterSmart Landscape Makeover Program. He added that these efforts together have ultimately conserved over 1 MAF of water in the San Diego region, stating that this water stays in Lake Mead. Since the '90s, SDCWA has successfully implemented several award-winning outreach campaigns such as Don't Be a Waterhog, Brought to You by Water, and the 20-Gallon Challenge which also resulted in significant conservation in the region. He stated that as of 2023, San Diego County has the lowest per capita water use in Southern California, dropping

40% from its 1990 per capita water use volume, while the population has grown by almost 750,000 people during that same time.

Vice Chairman Madaffer reported that in 2015, SDCWA made a strategic investment, along with its member agencies, in the Carlsbad Desalination Plant, which generates drought proof water supplies. He added that SDCWA would like to exchange some of this water to Arizona and Nevada through exchange agreements. He stated the plant generates up to 56,000 AF of water and has the potential to expand its operating capacity, which could be a tool to improve Lake Mead's water level and the Colorado River.

Lastly, Vice Chairman Madaffer reported on local water supply development. He stated that several local projects, including the Sweetwater Brackish Groundwater Recovery, Pure Water Oceanside, and Fallbrook Santa Margarita Conjunctive Use, have all supplemented and complemented the QSA through water reuse. He noted that the projects generate about 12,000 AF of water a year, reducing the volume of imported supplies needed to meet the region's demands. He reported that are a few near-term projects anticipated to come online by 2025 that will generate about 33,000 AF of water in its initial phases. He reported that SDCWA climate change efforts have been popular.

Los Angeles Department Water and Power (LADWP)

Member Pettijohn reported that LADWP's service area has had declining water use over the last few years on a per capita basis. He added that LADWP has done a lot in the way of conservation of water use efficiency in the city since the early 1980s. He reported that LADWP water use was 159 gallons per person per day in 2000 and is currently 101 gallons per person per day. He added that Los Angeles has a million more people living there since the 1970s, and the city is using less water than in 1970.

Member Pettijohn reported on LADWP's water conservation program and partnerships. He stated that in 2022, LADWP increased its turf rebate for commercial and residential customers to \$5 per square foot. He added that LADWP has instituted hands-on workshops to train people on how to implement conservation in their landscapes, adding that the agency also has turf rebate design services to redesign a homeowner's landscape. He stated that these programs remove the barrier for a lot of customers who would like to remove their turf, but do not know how to design a landscape. He stated that LADWP has increased the rebate for the Technical Assistance Program for businesses. He stated that businesses in the City of LA can get up to \$2 million for water conservation improvements for businesses. He reported on the many businesses and industries, such cooling towers and hospitals, that have benefited from the LADWP rebate program.

Member Pettijohn reported on LADWP's Flume Program. He explained that the Flume is a home water metering device that can be monitored from a phone. He stated that the device retails for \$249 but it is available to LADWP customers for \$24 plus tax and shipping costs. He stated that the device is installed on a water meter and provides real-time water use. He noted that LADWP customers can also monitor their water use with home water use reports, that show the homeowners use compared to their neighbors. He reported that LADWP also has a direct installation program partnership with the gas company. He explained that LADWP comes into the homes and replaces appliances with more energy, water, and gas efficient devices. He added that LADWP also has a community partnership grant program that helps implement these programs in communities within the service area.

Lastly, Member Pettijohn reported on LADWP's groundwater and local storage efforts. He stated that the San Fernando Basin is the largest groundwater basin in the City of LA. LADWP has about 100,000 acre-feet of pumping rights in that basin. He noted, unfortunately, that there is contamination in that basin in the form of trichloroethylene, perchloroethylene and dioxane. He explained that the contamination resulted from industry back in the '60s and '70s. He stated that LADWP has built several remediation facilities that have cost about \$700 million to recover the groundwater basin. Construction of the remediation facilities is expected to be completed in 2024 to restore the full use of the basin.

Member Pettijohn added that LADWP also introduced the Stormwater Parks Program which grew out of our Stormwater Capture Master Plan. He stated that the master plan gave the agency a roadmap on how to double or triple the amount of stormwater the city captures in a year. He stated that it is one of the agency's signature programs. He stated that with the innovative program, LADWP will take nine parks in the City of LA in disadvantaged communities and retrofit those parks, create a new park, and underneath that park there will be large stormwater capture facilities. He reported that this will add about 3,000 AF of stormwater and will be completed in 2031.

Member Pettijohn reported on LADWP's Groundwater Replenishment Program. He stated that 21,000 AF of advanced treated recycled water from the Donald C. Tillman Water Reclamation Plant will be recharged into the San Fernando Basin and will be able to be pumped and served to its customers. He stated that the project will be completed by 2027. He concluded that LADWP has a general approach to water use efficiency, which is to "capture, conserve and reuse" water.

Metropolitan Water District of Southern California (MWD)

Member Cordero reviewed several of MWD's efforts to implement water conservation and ensure water reliability. She highlighted MWD's leadership in regional water management in

the face of unpredictability, including environmental issues, natural disasters, and now climate change. She noted MWD's partnerships with local agencies and communities in its demand management program, reporting that MWD had invested about \$1.6 billion since the early 1990s in programs to support conservation efforts, recycled water, and groundwater recovery and cleanup, resulting in a reduction of about 8.25 MAF of water use.

Member Cordero then highlighted MWD's conservation programs for residential, business, public agency, and industrial water users. She noted that these programs saved about 1.4 billion gallons of water, or about 4,000 acre-feet, in FY 2022-2023. She further noted that MWD's most significant conservation is its turf replacement program, which has helped replace about 218 million square feet of grass.

Member Cordero then highlighted MWD's success in managing water demand in the face of population growth, noting that the regional population has grown by almost 30% since 1990 but that water use for the same period has dropped by almost 40%.

With her last slide, Member Cordero highlighted MWD's partnerships and collaborations, beginning in 1988. She acknowledged and thanked those in the meeting room and MWD's agency partners. She also thanked MWD's directors, noting that some of them are in the room, including David De Jesus, Cindy Katz, Director McCoy and Director Glen Peterson. She also thanked MWD General Manager Adel Hagekhalil, noting he was in the room earlier, and MWD Chair Adan Ortega. She also thanked MWD staff, mentioning eleven staff members in particular.

Imperial Irrigation District (IID)

Tina Shields, the Water Department Manager of the Imperial Irrigation District, stated that IID's priority is to provide water to the Imperial Valley community and to its growers, supporting a \$2.6 billion agricultural community as well as the broader community indirectly. She highlighted that the IID community grows food to help keep vegetable prices low, noting that most lettuce in Las Vegas would be coming from the Imperial Valley and shipped through Yuma, Arizona.

Ms. Shields stated that IID has a long history of conservation, noting in particular IID's partnership with MWD for conservation. She noted that IID's partnership with MWD started in 1988, their first collaborative partnership with other agencies to provide funding for conservation related upgrades to IID's system. She noted that the 1988 agreement with MWD was significant as IID's system had not changed much since it was first developed about 115 years ago. She noted several of the upgrades resulting from the 1988 agreement with MWD, including over 200 miles of concrete lining of canals, three new reservoirs, two reservoir upgrades, and lateral interceptors to reuse agricultural runoff. She also noted that at the time, the Salton Sea level was rising, so

they were not concerned about falling sea levels as they are today, and that these initial efforts resulted in 105,000 acre-feet of conserved water per year.

Ms. Shields then reported on the 2003 QSA and the additional partnerships from that, including with SDCWA and CVWD, resulting in another 303,000 acre-feet of conserved water. She noted that transfers to SDCWA is now completely ramped up and the transfer with CVWD will be in about three years. She highlighted some of the system improvements resulting from the QSA, including on-farm conservation activities such as drip systems, sprinkler systems, tail water return systems, and precision laser leveling. She emphasized that the QSA resulted in efficiency improvements and not fallowing. She also mentioned the lining of the All-American Canal funded by SDCWA, noting that it has saved 67,700 acre-feet of water per year.

Ms. Shields noted that these investments have improved California's water supply reliability and the continued success of agricultural production. Ms. Shields stated that these programs have conserved over 7.7 million acre-feet of water over the 20-year period since the QSA.

Ms. Shields also noted that one consequence of these programs has been the declining level of the Salton Sea and requested that the federal government recognize this in connection to the Colorado River. She noted that with the federal investment in the Salton Sea, the state was able to accelerate their related projects and start to meet their Salton Sea targets to help ensure the Imperial Valley community can not only continue to grow food but also remain healthy without the public health and environmental impacts associated with the decline of the Salton Sea.

Ms. Shields additionally noted the value of the new federal funding and conservation actions for saving even more water in the future. Ms. Shields also noted another forthcoming three-year agreement to save an additional 250,000 acre-feet per year, amounting to 24% of IID's water supply.

Ms. Shields emphasized that these are 100% voluntary programs, but that it takes significant collaboration between the water agencies, the federal government, and the state government, in addition to funding, to move these projects forward.

California Department of Water Resources (DWR)

Member Jones provided a table displaying DWR water supply related grants awarded from 2000 to 2023. She stated the State of California has provided more money in grants to its water users across the state than the other six Basin states. She stated that since 2000, DWR provided a total of \$3 billion in grants for water resilience, drought relief, sustainable groundwater, and QSA implementation. She added that the State Water Resources Control Board

(SWRCB) also provided significant assistance for water recycling. She stated that as of 2021, California had 287 water recycling projects in operation. She stated that during the most recent drought, DWR provided \$1 to \$2 million grants to small water agencies in rural communities that ran out of water. She stated that most recently, DWR executed a grant agreement to give MWD \$50 million to fund infrastructure projects that bring Colorado River water supplies to its furthest west service area within its distribution system. She noted that DWR also provided funding to LADWP's San Fernando Valley groundwater remediation projects. Ms. Jones reported that during the last drought the State was fortunate to have been in a budget surplus and had funds from previously approved bond acts.

Member Jones reported that in 2009, California developed legislation that mandated improving water conservation and water use efficiency by 20% by 2020. She stated that in 2018, the State passed legislation titled, Making Water Conservation a Way of Life legislation which set a standard of 55 gallons per capita per day for indoor water use. She stated that the SWRCB is currently in the regulatory process to decrease the indoor water use standard from 55 to 47 gallons per capita per day by 2025, noting that outdoor water use standards are also under review.

Member Jones stated that DWR's investments in technology such as OpenET, Forecast Informed Reservoir Operations (FIRO) & Flood Managed Aquifer Recharge (FloodMAR) and the Airborne Snow Observatories (ASOs), provide decisional support to water agencies. She explained that DWR purchases \$68 million worth of data every year and then provides it to the water agencies that can use the data. She stated that DWR has invested in Airborne Electromagnetic Monitoring (AEM) work to map out areas that are suitable for groundwater recharge and to help incentivize local agencies to undertake groundwater recharge projects. Member Jones stated that she is very passionate about improving precipitation forecasting for longer lead times and making investments in programs such as FIRO and FloodMAR. She added that the Army Corps of Engineers is moving towards adoption of FIRO at the nationwide scale building off the experience generated from projects in California. She added that DWR's FloodMAR work addresses the State's sustainable groundwater efforts.

Lastly, Member Jones discussed DWR's work with improving subseasonal to seasonal (S2S) precipitation forecasting. She praised the relationship that Reclamation has had with DWR on Colorado River Basin forecasting issues and hopes that the National Oceanic and Atmospheric Administration (NOAA) creates more opportunity to improve its S2S forecasting efforts. She reported that the Weather Act Reauthorization bill has a significant funding for pilot projects, including for the Western U.S.

Palo Verde Irrigation District (PVID)

Upon invitation by Deputy Director Neuwerth for agencies without slides to speak, Member Seiler recognized PVID general manager JR Echard and PVID trustees Brad Robinson and Charles Vandyke, noting they are in the audience. He indicated the Mr. Echard would speak.

Mr. Echard first described PVID's efforts to help keep water in Lake Mead, noting that from August 1st, 2021 through July 31st, 2023, PVID, with MWD's support, left 118,000 acre-feet of water in Lake Mead and that with the agreement signed this morning they would leave an additional 87,000 acre-feet in Lake Mead for the next 3 years, through 2026.

Mr. Echard noted that PVID has proposed four long-term conservation projects. He stated that one would be a regulating reservoir below PVID's diversion dam in Palo Verde that would capture 3,000 acre-feet during the summer monsoon storms that would otherwise flow to Mexico. He reported that the second proposal is to line as many canals as possible, hopefully one quarter of a mile per year, to reduce seepage. The third, he noted, is to clean up 142 miles of their open cut drain system that is full of brush, reducing consumptive losses in the drains. Finally, he mentioned a deficit irrigation program, which a 2021-2022 study showed could save one acre-foot per acre by cutting back on the watering cycle of alfalfa.

Mr. Echard concluded by noting that PVID is doing the best they can and that they will continue to find ways to save water through conservation rather than fallowing. He also noted that PVID is in its 19th year of a program with MWD and that they have 17 more years to go with that program.

Coachella Valley Water District (CVWD)

Member Nelson first acknowledged Anthony Bianco, the CVWD Board of Director for Division Two, and CVWD staff members present, including Robert Cheng, Steve Abbott, and Victoria Llort.

Member Nelson stated that in 2022 CVWD participated in the 500+ Plan, conserving almost 10,000 acre-feet of water, and over the next 3 years will cumulatively conserve over 100,000 acre-feet. He also noted that CVWD is adding to that another program with farmers to hopefully save another 10,000 acre-feet per year.

Member Nelson also noted that CVWD is interested in urban conservation, saying CVWD previously offered their customers \$6 per square foot for turf replacement, but that they are back down to \$3. He emphasized that this shows their commitment to urban conservation.

Member Nelson went on to describe CVWD's tiered rate structure for domestic use, with two examples. He explained that the rates consist of monthly, weather-dependent budgets that are comprised of both indoor use—55 gallons per person per day—and on the size of the property. He noted that exceeding a domestic water budget scales with the size of the property. He emphasized that the scheme is based on a sliding scale, individualized to 100,000 accounts.

Member Nelson also noted that CVWD has groundwater replenishment, and that they have replenished over five million acre-feet of water at their replenishment sites in the area. He acknowledged their partnership with MWD on State Water Project water for replenishment.

Member Nelson noted a few more miscellaneous recent developments and activities, emphasizing the value of partnerships with others. He noted that some of the canal lining from the QSA has resulted in lining popping off, causing operating costs, so they are removing some lining. He mentioned the effects of tropical storm Hilary on their infrastructure and delivery of Colorado River water, noting their partnership with MWD to pay for repairs.

Member Nelson noted CVWD's activity with their disadvantaged communities, supported with funding from the State of California and the federal government, to deliver safe water supplies in the East Valley.

Finally, Member Nelson noted a loan program with Reclamation to improve CVWD's infrastructure and reduce system losses. He noted that Reclamation came out to CVWD to celebrate their 120th birthday and together they celebrated the \$60 million loan from Reclamation to improve facilities.

Public Member Joaquin

Member Joaquin expressed that it is an honor to be on the Board, noting that he is the first tribal representative, tribal elected leader, and tribal member to serve on the Board.

Member Joaquin noted that Reclamation Commissioner Touton said earlier that California is leading the cause to preserve our water. Member Joaquin noted that tribes have been wanting a seat at the table. He emphasized that not everybody in the tribes will be happy with the final post-2026 agreement, and that we have to acknowledge that, but that there are still some solutions for tribes on the table.

Member Joaquin emphasized that California is leading because it wants to maintain a living river and that now more than ever preserving the Colorado River should be a theme.

Member Joaquin again expressed honor to be part of the Board, and thanked Board Deputy Director Neuwerth and Executive Director Harris for their behind-the-scenes work getting tribal representation on the Board.

ADMINISTRATION

Chairman Hamby asked for a motion to approve the September 13, 2023, Board meeting minutes. Member Madaffer moved that the minutes be approved, seconded by Member Pettijohn. By roll-call vote, the minutes were unanimously approved.

Chairman Hamby asked for a motion to approve the October 11, 2023, Board meeting minutes. Member Madaffer moved that the minutes be approved, seconded by Member Pettijohn. By roll-call vote, the minutes were unanimously approved.

Chairman Hamby asked for a motion to approve the 2024 board meeting schedule. Executive Director Harris noted that the 2024 board meeting schedule was subject to change. Member Madaffer moved that the 2024 board meeting schedule be approved, seconded by Member De Jesus. By roll-call vote, the 2024 board meeting schedule was unanimously approved.

LOCAL AND STATE WATER SUPPLY AND OPERATIONS REPORT

Member Jones, representing DWR reported that the State has not seen much precipitation, noting that there is still time in the winter season. She added that the months of October and November are not big contributors to the State's water budget for the water year. However, about 50% of the State's annual precipitation comes during December, January, and February. Ms. Jones reported that current reservoir storage is above average, due to last year's atypical precipitation conditions.

Member Jones reported on results from a forecasting model from Scripps that shows the probability of atmospheric rivers (ARs) making landfall during the winter season. She explained that most of the skill of weather forecasts is the first seven days, noting that the model she is using is running up to sixteen days. She added that NOAA's seasonal forecast for winter predicts wetter than average conditions because their models are influenced by El Niño conditions. She stated that DWR has funded research from UCLA, which found that ENSO contributes 25% percent to influencing California's annual precipitation. She stated that the modeling results forecast the probability of atmospheric water vapor that is characteristic of an atmospheric river. She stated that the model shows that by the end of the week there is a probability that it will rain along the coast. She noted that California's peak period for big storms occurs between the end of December and the middle of January, noting that we should have a better idea of California's overall precipitation conditions by early February.

Member De Jesus, representing MWD, reported that as of December 1st, reservoir storage was 89% of capacity. He stated that the Colorado River Aqueduct (CRA) will remain on a 4-pump flow for the rest of the calendar year. In 2023, the diversion target is 662,000 AF and as of December 11th, MWD diverted slightly over 125,000 AF. He added that deliveries for the first ten months of the year are 80% of average. He reported that the 2023 delivery target for the Desert Water Agency and the Coachella Valley Water District, is 231,000 AF.

Member Pettijohn, representing LADWP, reported on the Eastern Sierra precipitation conditions. He stated there has been little to no snow since an early storm in October. He stated that current snow conditions are on track with the conditions from winter 2021/2022 which experienced poor winter storm activity. He added that it is still early in the winter season, and the current conditions are not indicative of the winter precipitation season.

COLORADO RIVER BASIN WATER SUPPLY AND OPERATIONS REPORT

Executive Director Harris reported that as of December 11th, the water level at Lake Powell was 3,570.58 feet with 8.56 MAF of storage, or 37% of capacity. The water level at Lake Mead was 1,065.93 feet with 8.88 MAF of storage, or 34% of capacity. The total system storage was 24.86 MAF, or 43% of capacity, which is 5.74 MAF more than system storage at this time last year.

Executive Director Harris reported that as of December 1st, for Water Year-2024 (WY-2024) forecasted unregulated inflow into Lake Powell is 7.62 MAF, or 79% of normal. He reported that the forecasted April to July inflow into Lake Powell is 4.8 MAF, or 75% of normal. He stated that observed inflow into Lake Powell for November was 91% of normal and the December inflow forecast was 98% of normal. He reported that WY-2024 precipitation to date is 87% of normal.

Executive Director Harris remarked that last year was remarkable not only due to the great winter storms but also because the combined water use by Arizona, California, Nevada and Mexico was 7.26 MAF, noting that the Lower Basin States combined water use was 5.8 MAF. He added that California's use for 2023 is projected to be about 3.7 MAF, which is the lowest since 1949. He commended the agencies for their hard work in 2023 and going into the interim period. He stated that there is still a lot to do with respect to post-2026 efforts. He stated that the Lower Basin did a lot of good work securing funding for the Salton Sea projects, and then moving into executing and beginning the implementation of the IRA funding agreements, which he stated will continue for the next few years. He stated that the Lower Basin is committed to working with the Upper Basin collaboratively.

Executive Director Harris reported on precipitation conditions in December, stating precipitation conditions are below normal. He reported that Upper Basin snow water equivalent (SWE) is currently tracking below precipitation conditions from 2022.

Executive Director Harris reported that through the end of November, the Brock and Senator Wash regulating reservoirs captured 102,861 AF and 68,600 AF, respectively. He also reported that the excess deliveries to Mexico were 54,695 AF, compared to 8,637 AF at this time last year. He noted Hurricane Hilary contributed to the excess flows. He stated that saline drainage bypass to the Cienga de Santa Clara is currently about 105,526 AF, noting that bypass drainage averages about 125,000 AF a year.

COLORADO RIVER BASIN PROGRAM STAFF REPORTS

Colorado River Basin Salinity Control Forum

Executive Director Harris reported that the Salinity Control Forum (Forum) Work Group (Work Group) met in late October. He stated that the Forum has approved the proposed 2023 triennial review, which maintained the previous Colorado River water quality standards.

Executive Director Harris reported Reclamation published a Request for Information regarding brine management and disposal at the Paradox Valley Unit. He noted that the Salinity Work Group and Reclamation were in the process of collecting the information and evaluating it.

Executive Director Harris reported that Aaron Mead from the Metropolitan Water District (MWD) has been appointed as the new Work Group Chairman.

Status of the Glen Canyon Dam Adaptive Management Program

Staff Member Rapoport reported that the scoping comments and a comment summary have been made available by Reclamation as part of the process to develop a Supplemental Environmental Impact Statement (SEIS) to revise the Long Term Experimental Management Plan (LTEMP). The proposed revisions are intended to: (1) evaluate flow options to prevent warmwater invasive nonnative fish from establishing below Glen Canyon Dam and (2) incorporate new information regarding the sediment accounting window associated with the LTEMP High-Flow Experiment protocol. The final SEIS and Record of Decision are anticipated to be available by June 2024.

Status of the Lower Colorado River Multi-Species Conservation Program

Staff Member Rapoport reported that the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) has requested initiation of reconsultation with the U.S. Fish

and Wildlife Service to obtain coverage for increased flow reductions. The LCR MSCP is seeking to increase its current coverage of 1.574 MAFY to between 2.083 MAFY and 2.5 MAFY. To mitigate for the potential decreased flow, measures have been proposed to minimize the impact. These measures include additional monitoring, research, and habitat creation.

Staff Member Rapoport added that the LCR MSCP Steering Committee will meet this afternoon.

EXECUTIVE DIRECTOR'S REPORT

Basin States Activities

Executive Director Harris reported that the Upper Basin and Lower Basin both submitted comment letters in response to Reclamation's revised draft supplemental environmental impact statement (SEIS), released in October. Executive Director Harris noted that all seven Basin States are committed to preparing a framework concept for post-2026 reservoir operations by spring 2024. Executive Director Harris reported that there are still significant differences of opinion among the Basin's many water users, and there is an extremely compressed timeframe to develop a framework that is acceptable and increases water supply reliability.

Post-2026 Operations Web Tool

Executive Director Harris closed by stating that Reclamation has released a web tool for building potential operational elements that could be used in efforts to develop post-2026 operations and alternatives. He noted that the Reclamation Commissioner indicated that they intend to run every submitted alternative through this web tool and perform an impact assessment of the results in their draft EIS. He noted that he thinks Reclamation wants alternatives by early March to be able to run the alternatives through their tool, and that there may need to be a back and forth among proponents of different alternatives. He expressed that the use of the tool was good, that it would provide additional transparency, and that it is something the general public can easily use. He additionally encouraged all to go online to explore and use the web tool.

CHAIRMAN'S REPORT

Chairman Hamby reported that a ceremony was held to celebrate Reclamation's provision of funding for restoration of the Salton Sea. In December 2023, Reclamation committed \$250 million for Salton Sea restoration; the ceremony marked delivery of the first \$70 million. Chairman Hamby noted that the funding would dramatically expand the state's Species Conservation Habitat to suppress dust and improve the habitat availability for birds and other

species. He reported that Secretary Crowfoot, Commissioner Touton, and many others had attended the ceremony.

Chairman Hamby reported that he was part of a panel at a recent Association of California Water Users (ACWA) conference. The panel included speakers from IID, MWD, CVWD, and the Quechan Tribe. Chairman Hamby noted that the panel was a good chance to update the rest of California on Colorado River issues.

Chairman Hamby reported that in late October, he and Board staff had visited Washington D.C. and had a set of very productive meetings with Congressional and White House staff, as well as Bureau of Reclamation leadership.

Chairman Hamby noted that the submittal of comment letters on the SEIS concluded over year of difficult negotiations between the states on interim period operations. He reported that the Lower Basin Plan analyzed in the SEIS performs well and has successfully replaced the two alternatives in an earlier version of the SEIS.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Hamby adjourned the meeting at 12:38 p.m.

2/5/2024

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	Content 1000 ac-ft (kaf)	Elev. (Feet above mean sea level)	7-Day Release (CFS)
CURRENT STORAGE	FULL			
LAKE POWELL	35%	8,118	3,564.61	11,200
* LAKE MEAD	36%	9,476	1,073.45	4,500
LAKE MOHAVE	93%	1,680	642.30	3,800
LAKE HAVASU	95%	589	448.46	1,800
TOTAL SYSTEM CONTENTS **	43%	24,932		
As of 2/4/2024				
SYSTEM CONTENT LAST YEAR	33%	19,062		
*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	82%	1,868		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	14%	136	1,124.07	20
Forecasted Water Use for Calendar Year 2024 (as of 02/05/2024) (values in kaf)				
NEVADA			224	
SOUTHERN NEVADA WATER SYSTEM				212
OTHERS				12
CALIFORNIA			4,351	
METROPOLITAN WATER DISTRICT OF CALIFORNIA				980
IRRIGATION DISTRICTS				3,352
OTHERS				19
ARIZONA			2,055	
CENTRAL ARIZONA PROJECT				898
OTHERS				1,158
TOTAL LOWER BASIN USE				6,630
DELIVERY TO MEXICO - 2024 (Mexico Scheduled Delivery + Preliminary Yearly Excess ¹)				1,456
OTHER SIGNIFICANT INFORMATION				
UNREGULATED INFLOW INTO LAKE POWELL - FEBRUARY FINAL FORECAST DATED 2/5/2024				
		MILLION ACRE-FEET	% of Normal	
FORECASTED WATER YEAR 2024		7.356	77%	
FORECASTED APRIL-JULY 2024		4.700	74%	
JANUARY OBSERVED INFLOW		0.283	84%	
FEBRUARY INFLOW FORECAST		0.345	95%	
		Upper Colorado Basin	Salt/Verde Basin	
WATER YEAR 2024 PRECIP TO DATE		92% (10.4")	68% (7.2")	
CURRENT BASIN SNOWPACK		92% (8.9")	87% (3.7")	

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

LOWER COLORADO BASIN REGION
CY 2024

ARIZONA, CALIFORNIA, NEVADA, MEXICO

FORECAST OF END OF YEAR CONSUMPTIVE USE

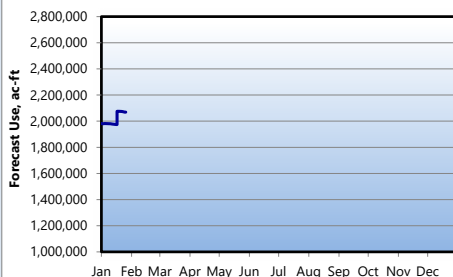
FORECAST BASED ON USE TO DATE AND ANNUAL WATER ORDERS ¹

(ACRE-FEET)

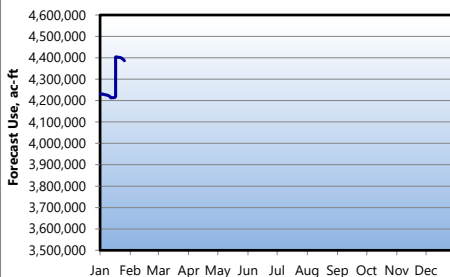
	Use To Date CY 2024	Forecast Use CY 2024	Approved Use ² CY 2024	Excess to Approval CY 2024
WATER USE SUMMARY				
Arizona	56,404	2,060,091	1,981,644	78,447
California	152,516	4,365,050	4,234,834	130,216
Nevada	6,642	222,929	222,929	0
States Total ³	215,562	6,648,070	6,439,407	208,663
Total Deliveries to Mexico ⁴	104,872	1,420,000	1,420,000	
Creation of Mexico's Recoverable Water Savings ⁵	0	30,000	30,000	
Creation of Mexico's Water Reserve ⁶	0	0	0	
Total to Mexico in Satisfaction of Treaty Requirements ⁷	104,872	1,450,000	1,450,000	
To Mexico in Excess of Treaty ⁸	9,948	35,915	27,417	
Water Bypassed Pursuant to IBWC Minute 242 ⁹	9,903	117,309	117,909	
Total Lower Basin & Mexico ¹⁰	340,285	8,221,294	8,004,733	

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 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 to meet Mexico's schedule. 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.a of the 2007 Interim Guidelines, a Tier 1 Shortage Condition will govern the operation of Lake Mead and the lower Colorado River in 2024. In accordance with Section III.A of Minute 323, Mexico's scheduled deliveries incorporate the required reduction of 50,000 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 2018-2022.⁹ "Water Bypassed Pursuant to IBWC Minute 242" forecast is based on the average for the period 1990-2022.¹⁰ Includes States Total, Total Deliveries to Mexico, To Mexico in Excess of Treaty, and Water Bypassed Pursuant IBWC Minute 242.

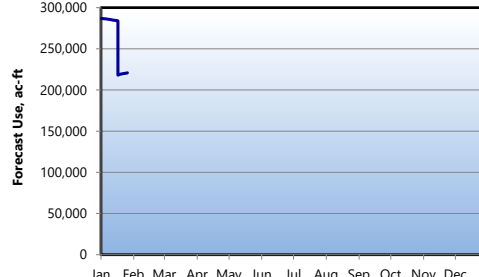
Arizona Forecast



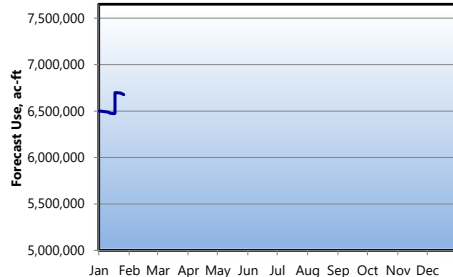
California Forecast



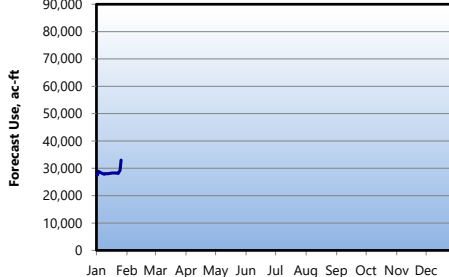
Nevada Forecast



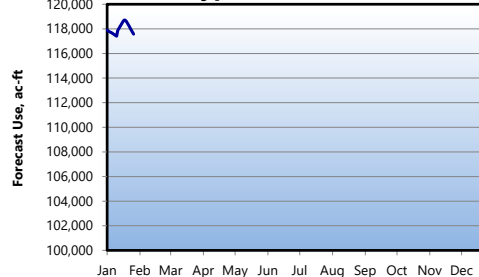
Lower Basin Forecast



Mexico in Excess Forecast



Bypass Forecast



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 diversion schedule change or monthly updating of provisional realtime diversions.

LOWER COLORADO BASIN REGION
CY 2024

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](#)[Historical Use Records \(Water Accounting Reports\)](#)

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.

	Use	Forecast	Estimated	Excess to	Diversion	Forecast	Approved	Excess to
	To Date	Use	Use	Estimated	To Date	Diversion	Diversion	Approved
WATER USER	CY 2024	CY 2024	CY 2024	CY 2024	CY 2024	CY 2024	CY 2024	CY 2024
TV Marble Canyon, AZ LLC	1	10	10	---	1	15	15	0
Lake Mead NRA, AZ - Diversions from Lake Mead	2	65	65	---	2	65	65	0
Lake Mead NRA, AZ - Diversions from Lake Mohave	21	224	224	---	21	224	224	0
McAlister Family Trust	0	7	7	---	1	10	10	0
Bureau of Reclamation - Davis Dam Project	0	2	2	---	1	9	9	0
Bullhead City	561	8,799	8,799	---	888	13,730	13,730	0
Mohave Water Conservation District	48	854	854	---	71	1,275	1,275	0
Mohave Valley I.D.D. ¹	826	12,267	12,267	---	1,530	22,716	22,716	0
Fort Mojave Indian Reservation, AZ	920	44,446	46,167	---	1,704	82,314	85,500	-3,186
Golden Shores Water Conservation District	16	289	289	---	24	433	433	0
Havas National Wildlife Refuge	98	3,590	3,564	---	817	41,809	41,835	-26
EPCOR Water Arizona, Inc. - CSA No. 1	47	595	595	---	73	916	916	0
Crystal Beach Water Conservation District	4	73	73	---	6	112	112	0
Lake Havasu City	608	9,052	9,052	---	981	14,600	14,600	0
Arizona State Parks (Windsor Beach)	1	9	9	---	1	14	14	0
Central Arizona Water Conservation District ²	49,979	898,411	---	---	49,979	898,411	---	---
Springs Del Sol Domestic Water Improvement District	0	2	2	---	0	3	3	0
Hillcrest Water Company	1	18	18	---	2	27	27	0
Frontier Communications West Coast	0	1	1	---	0	1	1	0
Town of Parker	19	388	388	---	57	897	897	0
EPCOR Water Arizona, Inc. - CSA No. 2 (formerly Brooke Water, LLC)	24	318	318	---	35	474	474	0
Colorado River Indian Reservation, AZ	-7,390	352,689	360,641	---	8,742	649,456	662,402	-12,946
GM Gabrych Family	0	0	0	---	0	0	0	0
Ehrenberg Improvement District	14	257	257	---	22	391	391	0
B&F Investment	0	7	7	---	1	10	10	0
North Baja Pipeline	12	208	208	---	18	320	320	0
Arizona State Land Department - Domestic	5	57	57	---	7	87	87	0
Cibola Island	41	728	728	---	57	1,018	1,018	0
Cibola Valley I.D.D.	108	3,284	3,284	---	152	4,593	4,593	0
Red River Land Co.	0	214	214	---	0	300	300	0
Hopi Tribe	0	0	0	---	0	0	0	0
GSC Farms, LLC	0	0	0	---	0	0	0	0
Arizona Game & Fish	0	2,032	2,032	---	0	2,838	2,838	0
Western Water, LLC	3	379	379	---	4	530	530	0
Bishop Family Trust	17	300	300	---	24	420	420	0
Cathcarts	0	6	6	---	0	8	8	0
Cibola Sportsman's Club	9	154	154	---	12	216	216	0
Cibola National Wildlife Refuge	256	15,575	15,575	0	413	25,122	25,122	0
Imperial National Wildlife Refuge	343	4,717	4,717	0	553	7,610	7,610	0
BLM - Leased by L. Pratt	1	25	25	---	2	39	39	0
BLM Permitees (Parker Dam to Imperial Dam)	73	1,302	1,302	0	112	2,003	2,003	---
Martinez Lake Cabin Sites	0	7	7	---	1	11	11	0
Fisher's Landing Water and Sewer, LLC	0	8	8	---	1	12	12	0
Shepard Water Company	1	16	16	---	1	25	25	0
U.S. Army Yuma Proving Grounds	27	421	421	---	27	421	421	0
JRJ Partners, LLC	35	618	618	---	53	950	950	0
Cha Cha, LLC	61	1,365	1,365	---	93	2,100	2,100	0
Beattie Farms Southwest	18	722	722	---	27	1,110	1,110	0
Gila Monster Farm	128	4,664	4,812	---	236	8,219	8,500	-281
Wellton-Mohawk I.D.D.	3,508	271,987	278,000	-6,013	10,735	411,387	424,350	-12,963
BLM Permitees (Below Imperial Dam)	6	114	114	0	10	175	175	---
City of Yuma	407	14,824	15,548	-724	1,106	26,426	27,500	-1,074
U.S. Marine Corps Air Station Yuma	60	1,205	1,219	---	60	1,205	1,219	-14
Union Pacific Railroad	2	29	29	---	4	48	48	0
University of Arizona	44	839	839	---	44	839	839	0
Yuma Union High School District	6	150	150	---	8	200	200	0
Desert Lawn Memorial	2	28	28	---	2	40	40	0
North Gila Valley Irrigation District	133	9,180	9,231	---	1,569	42,776	43,500	-724
Yuma Irrigation District	1,108	38,186	38,977	---	2,017	71,358	73,400	-2,042
Yuma Mesa I.D.D.	-1,451	61,486	62,410	---	4,668	185,816	188,219	-2,403
Unit "B" I.D.D.	-189	10,471	10,474	---	759	27,864	28,300	-436

	Use To Date CY 2024	Forecast Use CY 2024	Estimated Use CY 2024	Excess to Estimated Use CY 2024	Diversion To Date CY 2024	Forecast Diversion CY 2024	Approved Diversion CY 2024	Excess to Approved Diversion CY 2024
WATER USER								
Arizona State Land Department - Agriculture	239	4,295	4,295		369	6,607	6,607	0
Ott Family	14	248	248		21	382	382	0
Ogram Boys' Enterprises	32	574	574		49	883	883	0
Fort Yuma Indian Reservation	175	3,121	3,121	---	269	4,801	4,801	0
BLM - Leased by M. Lee	8	148	148		13	227	227	0
Armon Curtis	7	129	129		11	198	198	0
Yuma County Water Users' Association	5,243	271,216	279,319	---	13,847	360,285	367,300	-7,015
R. Griffin	2	32	32		3	49	49	0
Power	6	103	103		9	158	158	0
Cocopah Indian Tribe (PPR No. 7)	14	256	256		22	394	394	0
Griffin Ranches (PPR No. 7)	5	98	98		8	150	150	0
Milton Phillips (PPR No. 7)	3	55	55		5	85	85	0
Griffin Family Ltd. Partnership (PPR No. 7)	1	23	23		2	35	35	0
Cocopah Indian Reservation	67	1,821	1,821	---	67	2,776	2,812	-36
Reclamation - Yuma Area Office	6	100	100	---	6	100	100	0
Arizona Public Service Company	0	0	0		0	0	0	0
Gary Pasquinelli	8	198	198		12	305	305	0
Total Arizona	56,404	2,060,091	2,086,026		102,447	2,931,433	2,974,096	
Central Arizona Project (CAP) ²	49,979	898,411				898,411		
All Others	6,425	1,161,680	1,188,086			2,033,004	2,076,150	
Yuma Mesa Division, Gila Project	-210	108,852	110,618	-1,766		299,950		
Total 242 Well Field Pumping ³	5,500	57,000	56,130					

ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Arizona Basic Apportionment	2,800,000
Reduction for Tier 1 Shortage ⁴	(320,000)
Reduction for Arizona DCP Contributions ⁵	(192,000)
System Conservation Water - Pilot System Conservation Program ⁶	(400)
System Conservation Water - CAP Subcontractors ^{7,8}	(129,400)
System Conservation Water - Cathcarts ^{7,9}	(61)
System Conservation Water - CVIDD ^{7,10}	(2,007)
System Conservation Water - FMYN ^{7,11}	(13,933)
System Conservation Water - GM Gabrych ^{7,12}	(3,240)
System Conservation Water - GRIC ^{7,13}	(125,000)
System Conservation Water - Hopi ^{7,14}	(3,059)
System Conservation Water - MVIDD ^{7,15}	(13,441)
System Conservation Water - YMIDD ^{7,16}	(21,795)
System Conservation Water - Reclamation (Estimated) ^{7,17}	(25,000)
Delivery of ICS (CAWCD) ¹⁸ up to	30,980
Total State Adjusted Apportionment	1,981,644
Excess to Total State Adjusted Apportionment	78,447
Estimated Allowable Use for CAP	819,971

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. Amount shown includes the diversion of up to 2,033 AF to be delivered via the CAP to the Town of Queen Creek pursuant to Reclamation Wheeling Contract No. 20-XX-30-W0691 and the diversion of 72,000 AF of Arizona third priority Colorado River water to be delivered via the CAP to fulfill water rights settlements pursuant to the Stipulated Judgment and the Stipulation for Judgment entered on November 21, 2007.

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

⁴ In accordance with Section XI.G.2.D.1.a of the 2007 Interim Guidelines, a Tier 1 Shortage Condition will govern the operation of Lake Mead and the lower Colorado River in 2024, resulting in a 320,000 AF reduction to the state of Arizona's Colorado River basic apportionment.

⁵ In accordance with Section III.B.1.a of *Lower Basin Drought Contingency Operations* (LBOs), the state of Arizona is required to make DCP Contributions of 192,000 AF in 2024.

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

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

⁸ The estimated amount of System Conservation Water that will be created by certain CAP Subcontractors pursuant to executed SCIA's.

⁹ The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0776.

¹⁰ The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0771.

¹¹ The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0750.

¹² The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0774.

¹³ The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0760.

¹⁴ The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0779.

¹⁵ The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0770.

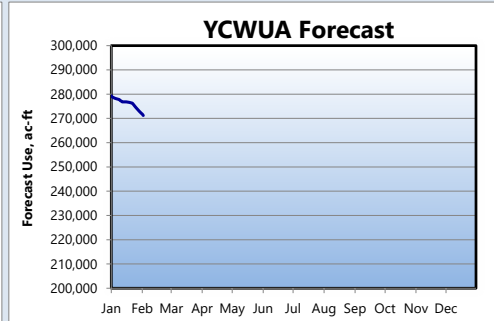
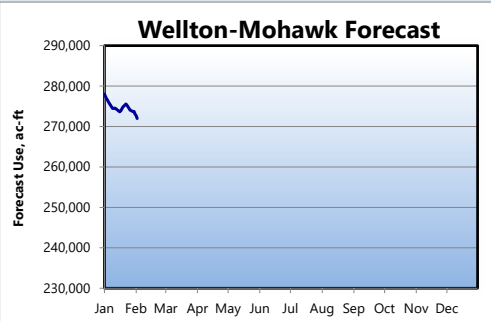
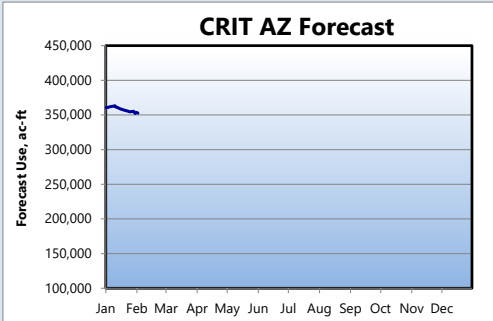
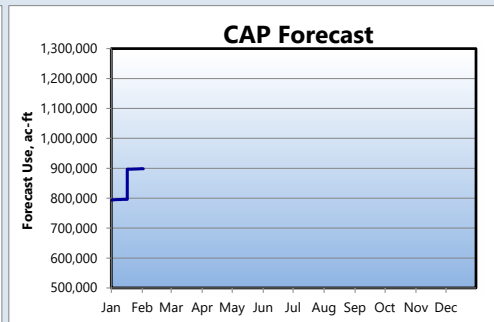
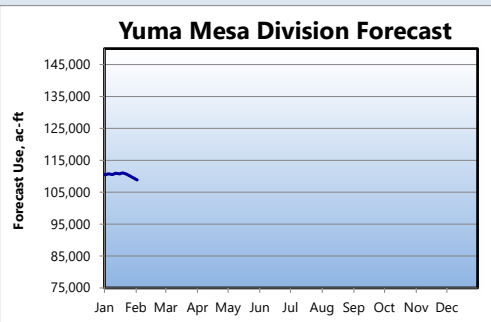
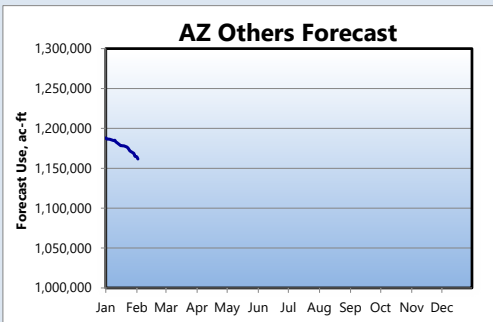
Footnotes continued on next page.

Footnotes continued from previous page.

¹⁶ The estimated amount of System Conservation Water that will be created pursuant to SCIA No.23-XX-30-W0769.

¹⁷ 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

¹⁸ The maximum amount of EC ICS delivery per CAWCD's approved water order. Actual amount of EC ICS delivered will be based on final accounting records.



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

LOWER COLORADO BASIN REGION
CY 2024

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](#)[Historical Use Records \(Water Accounting Reports\)](#)

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.

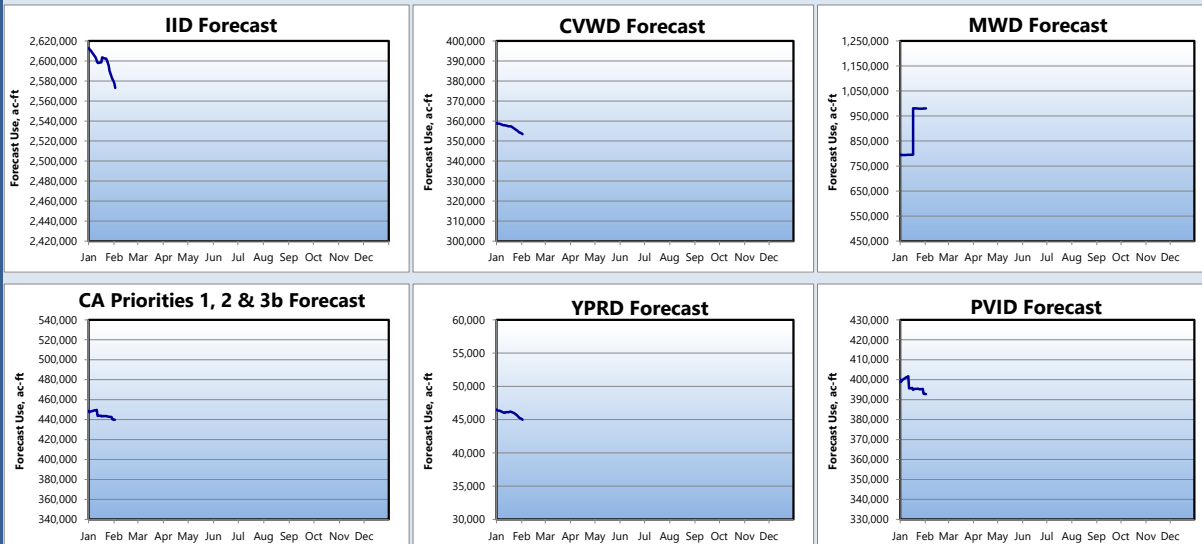
	Use To Date CY 2024	Forecast Use CY 2024	Estimated Use CY 2024	Excess to Estimated Use CY 2024	Diversion To Date CY 2024	Forecast Diversion CY 2024	Excess to Approved Diversion CY 2024	Approved Diversion CY 2024
WATER USER								
Fort Mojave Indian Reservation, CA	21	8,647	8,994	---	40	16,076	16,720	-644
City of Needles (includes LCWSP use)	95	1,605	1,605	0	134	2,261	2,261	0
PPR No. 30 (Stephenson)	1	16	16	---	2	29	29	0
PPR No. 38 (Andrade)	1	23	23	---	2	41	41	---
PPR No. 40 (Cooper)	0	6	6	---	1	10	10	---
Chemehuevi Indian Reservation	10	184	184	---	635	11,340	11,340	0
The Metropolitan Water District of Southern California ¹	58,084	980,169	---	---	58,343	982,598	---	---
Colorado River Indian Reservation, CA	245	4,380	4,380	---	406	7,258	7,258	0
Palo Verde Irrigation District	-2,478	392,850	400,228	---	24,443	815,822	826,000	-10,178
PPR No. 31 (Mendivil)	0	3	3	---	0	5	5	0
Yuma Project Reservation Division	-72	44,984	46,515	---	2,539	93,859	95,734	-1,875
Yuma Project Reservation Division - Bard Unit	---	---	---	---	1,325	48,932	49,800	-868
Yuma Project Reservation Division - Indian Unit	---	---	---	---	1,214	44,928	45,934	-1,006
Fort Yuma Indian Reservation - Ranch 5 (Surface Delivery)	51	1,194	1,194	---	92	2,160	2,160	0
Fort Yuma Indian Reservation - Other Ranches (Pumpers)	109	1,948	1,948	---	197	3,522	3,522	0
Yuma Island Pumpers	112	1,997	1,997	---	202	3,613	3,613	0
Imperial Irrigation District ²	83,222	2,573,066	2,612,800	-39,734	86,970	2,737,691	2,782,987	---
Coachella Valley Water District	13,084	353,429	359,000	-5,571	13,679	377,312	383,674	---
Other LCWSP Contractors	28	497	497	---	43	761	761	0
City of Winterhaven	3	52	52	---	4	75	75	0
Total California	152,516	4,365,050	4,418,780		187,732	5,054,433	5,117,928	

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

California Basic Apportionment	4,400,000
System Conservation Water - Pilot System Conservation Program ³	(145)
System Conservation Water - CVWD ^{4,5}	(35,000)
System Conservation Water - MWD/PVID Following Program ^{4,6}	(117,021)
System Conservation Water - Quechan Indian Tribe ^{4,7}	(13,000)
Creation of Extraordinary Conservation ICS ⁸	0
Total State Adjusted Apportionment	4,234,834
Excess to Total State Adjusted Apportionment	130,216

Estimated Allowable Use for MWD

849,953

¹ Forecast Use is based on MWD's operational projected diversion of 0.982 MAF as modeled in the January 24-Month Study.² IID's total approved consumptive use is 2,622,800 AF, of which up to 10,000 AF is anticipated to be supplied from the LCWSP.³ The estimated amount of System Conservation Water that will be created by the City of Needles pursuant to System Conservation Implementation Agreement (SCIA) No. 15-XX-30-W0596, which will remain in Lake Mead to benefit system storage.⁴ In accordance with the applicable system conservation agreements and Section 3.b of the *Lower Basin Drought Contingency Plan Agreement* dated May 20, 2019, the Bureau of Reclamation intends to apply all or a portion of this water towards the Secretary of the Interior's commitment to create or conserve 100,000 AF per annum or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the Lower Basin. This System Conservation Water will remain in Lake Mead to benefit system storage.⁵ The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0764.⁶ The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0772.⁷ The estimated amount of System Conservation Water that will be created pursuant to SCIA No. 23-XX-30-W0783.⁸ MWD has an approved ICS Plan for the creation of up to 450,000 AF of Extraordinary Conservation (EC) ICS in 2024. The actual amount of EC ICS created by MWD in 2024 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* (LBOs), the total amount of EC ICS that may be created by the states of Arizona, California, and Nevada in 2024 will be limited to 625,000 AF. Additionally, the total amount of EC ICS, Binational ICS and DCP ICS accumulated in Arizona, California and Nevada's ICS Accounts will be limited in accordance with Section IV.C. of LBOs.

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

LOWER COLORADO BASIN REGION
CY 2024

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](#)[Historical Use Records \(Water Accounting Reports\)](#)

	Use To Date CY 2024	Forecast Use CY 2024	Estimated Use CY 2024	Excess to Estimated Use CY 2024	Diversion To Date CY 2024	Forecast Diversion CY 2024	Approved Diversion CY 2024	Excess to Approved Diversion CY 2024
WATER USER								
Robert B. Griffith Water Project (SNWS)	29,600	447,451		---	29,600	447,451		---
Lake Mead NRA, NV - Diversions from Lake Mead	110	1,500	1,500	---	110	1,500	1,500	0
Lake Mead NRA, NV - Diversions from Lake Mohave	42	500	500	---	42	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.	64	928	928	---	64	928	928	0
Boulder Canyon Project	10	180	180	---	17	300	300	0
Big Bend Water District	288	4,823	4,823	---	723	10,000	10,000	0
Fort Mojave Indian Tribe	11	3,639	3,683	---	16	5,435	5,500	-65
Las Vegas Wash Return Flows	-23,483	-236,092	-232,886	---				
Total Nevada ¹	6,642	222,929	212,000	0	30,572	466,114	452,000	-65
Southern Nevada Water System (SNWS)	6,117	211,359				447,451		
All Others	525	11,570				18,663		
Nevada Uses Above Hoover	6,301	213,967				450,179		
Nevada Uses Below Hoover	341	8,962				15,935		

Tributary Conservation (TC) Intentionally Created Surplus (ICS)

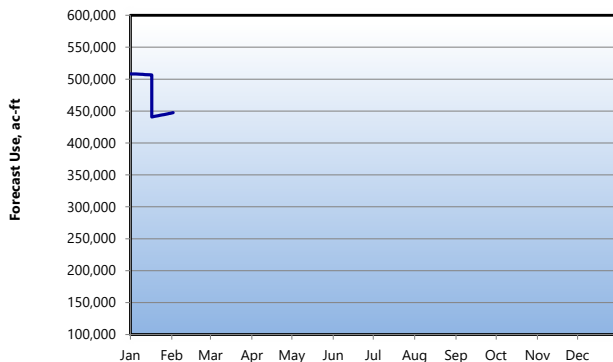
Southern Nevada Water Authority (SNWA) Creation of TC ICS (Approved) ² 44,000

NEVADA ADJUSTED APPORTIONMENT CALCULATION

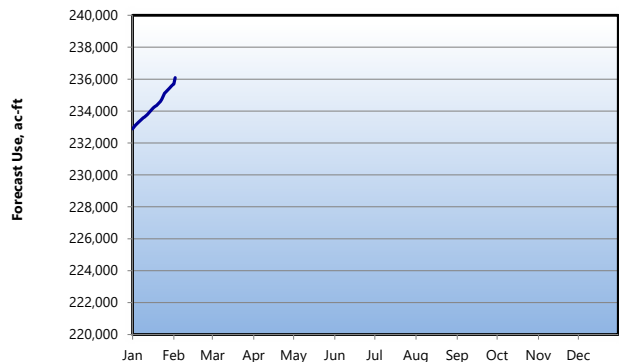
Nevada Basic Apportionment	300,000
Reduction for Tier 1 Shortage ³	(13,000)
Creation of Extraordinary Conservation ICS - SNWA (Estimated) ⁴	(64,071)
Total State Adjusted Apportionment	222,929
Excess to Total State Adjusted Apportionment	0

¹ The State of Nevada has been approved to consumptively use up to 287,000 AF in CY 2024. Forecast Use shown here is based on Nevada's operational projected consumptive use of 212,000 AF.² SNWA has an approved ICS Plan for the creation of up to 44,000 AF of TC ICS in 2024. The actual amount of TC ICS created by SNWA in 2024 will be based on final accounting and verification.³ In accordance with Section XI.G.2.D.1.a of the 2007 Interim Guidelines, a Tier 1 Shortage Condition will govern the operation of Lake Mead and the lower Colorado River in 2024, resulting in a 13,000 AF reduction to the state of Nevada's Colorado 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 2024. The actual amount of EC ICS created by SNWA in 2024 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 2024 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.

Robert B. Griffith Forecast



LV Wash Return Forecast



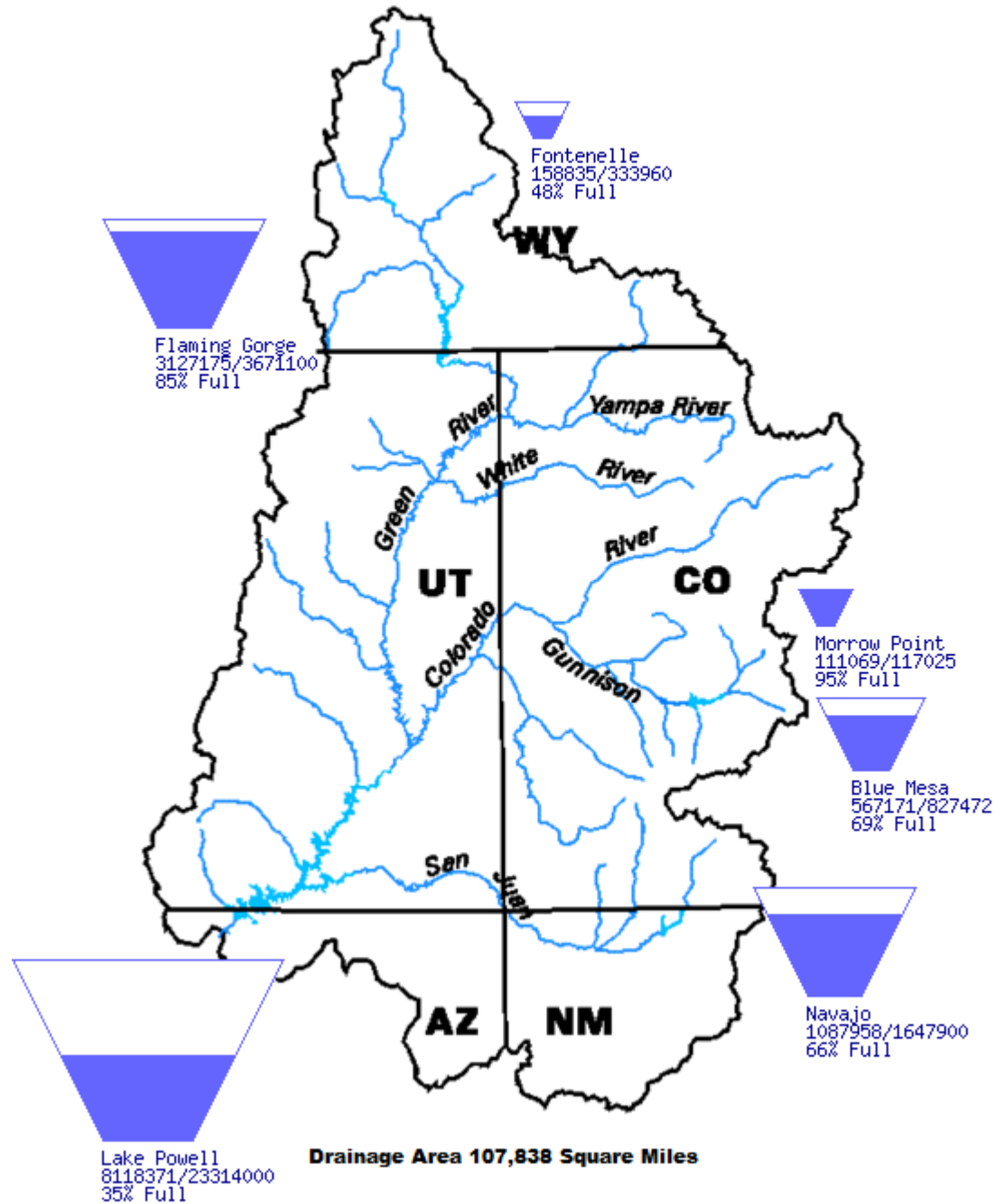
NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

Upper Colorado Region Water Resources Group

River Basin Tea-Cup Diagrams

Data Current as of:
02/04/2024

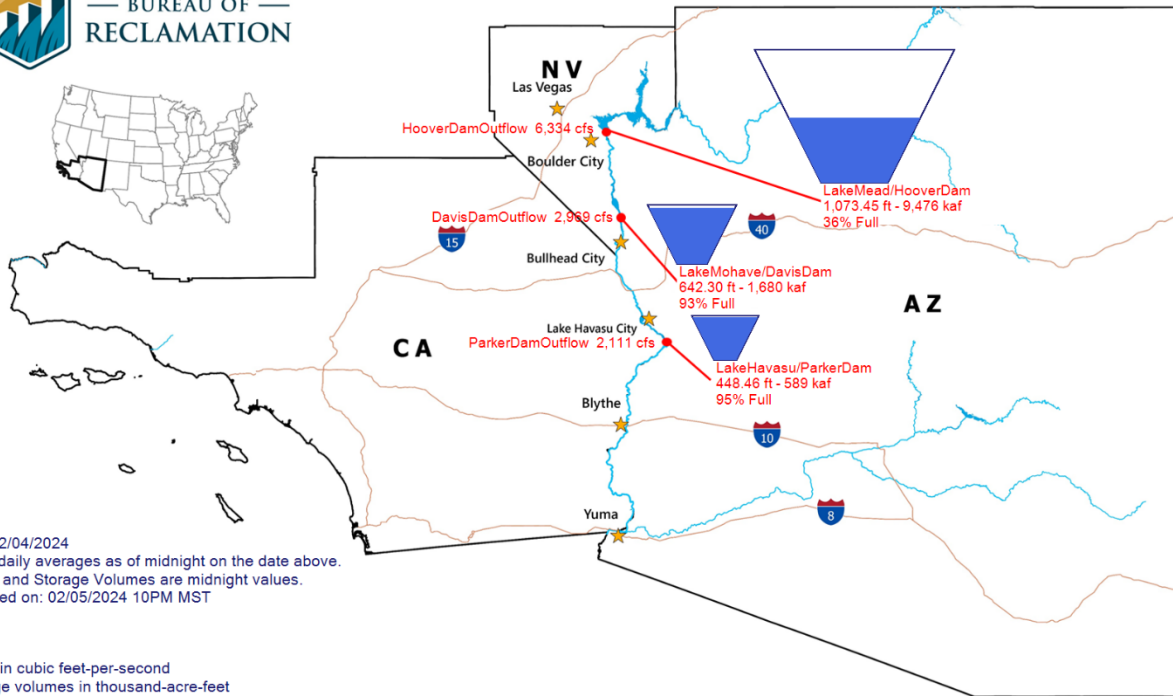
Upper Colorado River Drainage Basin



Lower Colorado River Teacup Diagram



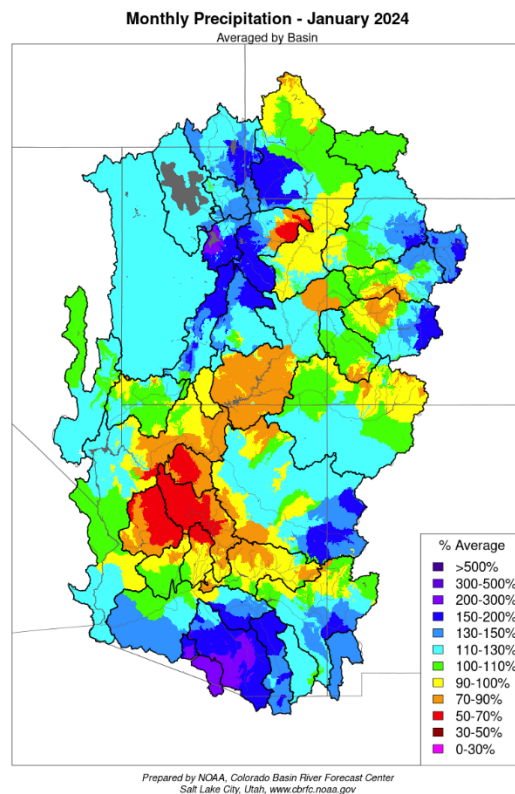
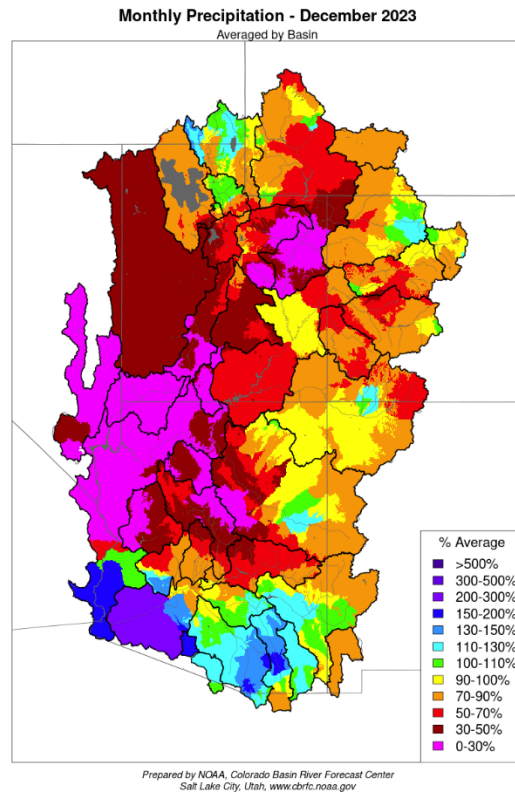
BUREAU OF
RECLAMATION



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 2023 and January 2024

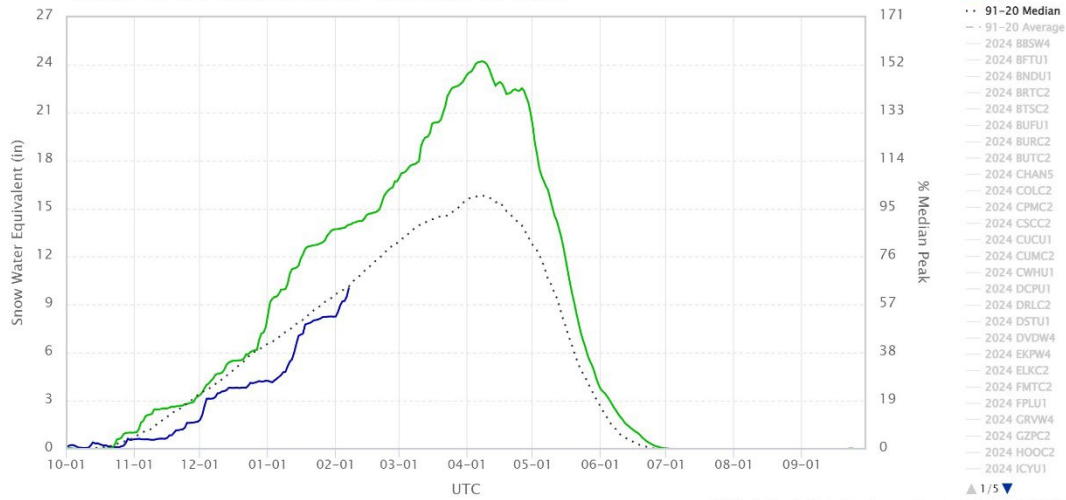


Lake Powell – longrecord – Group SNOTEL Plot

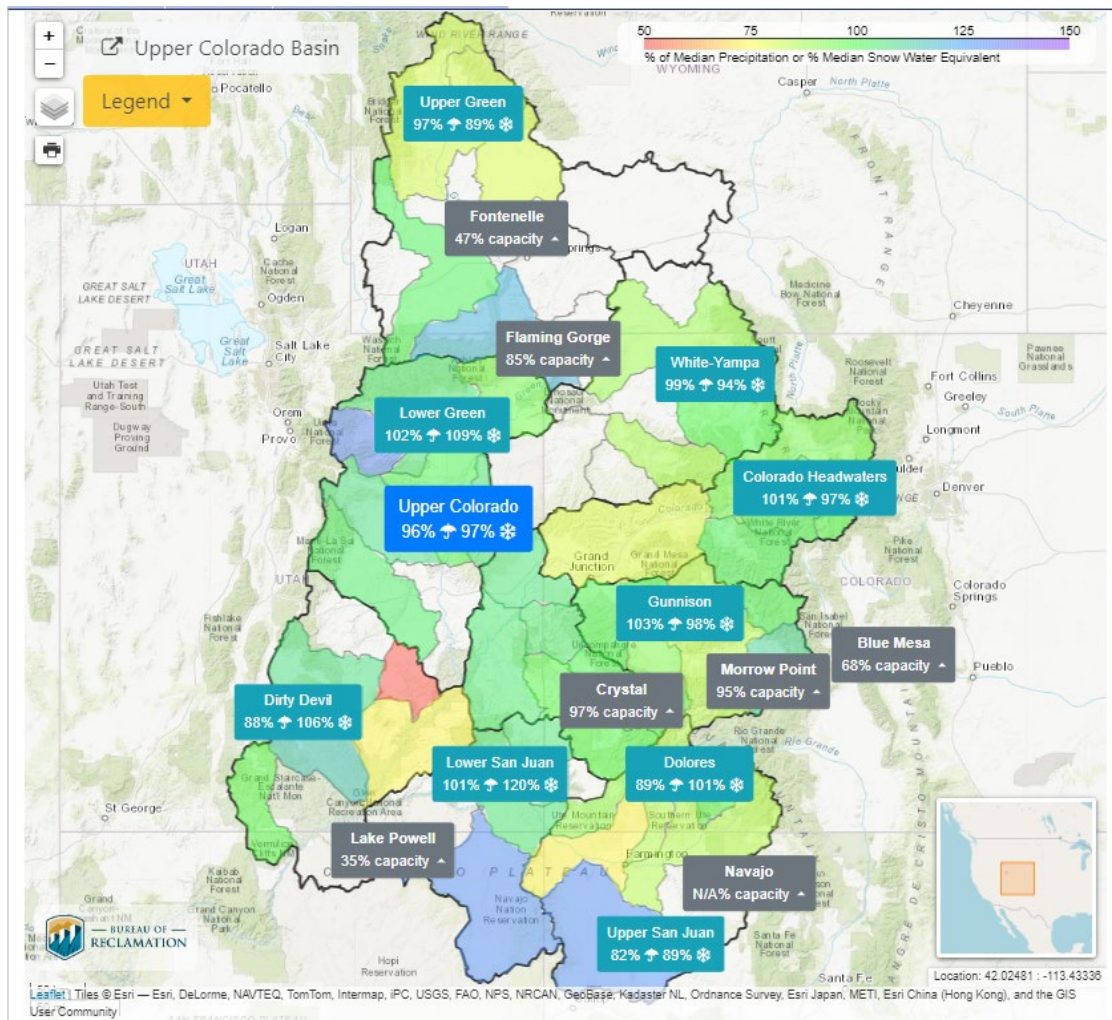
70 sites

Ob (02–07): 10.06 in, 99% Med – Rate (in/dy): 0.28 (3–day), 0.60 (week)

Peak (02–07): 10.06 in (64.00 % Med Pk) – Med Peak (04–07): 15.80 in

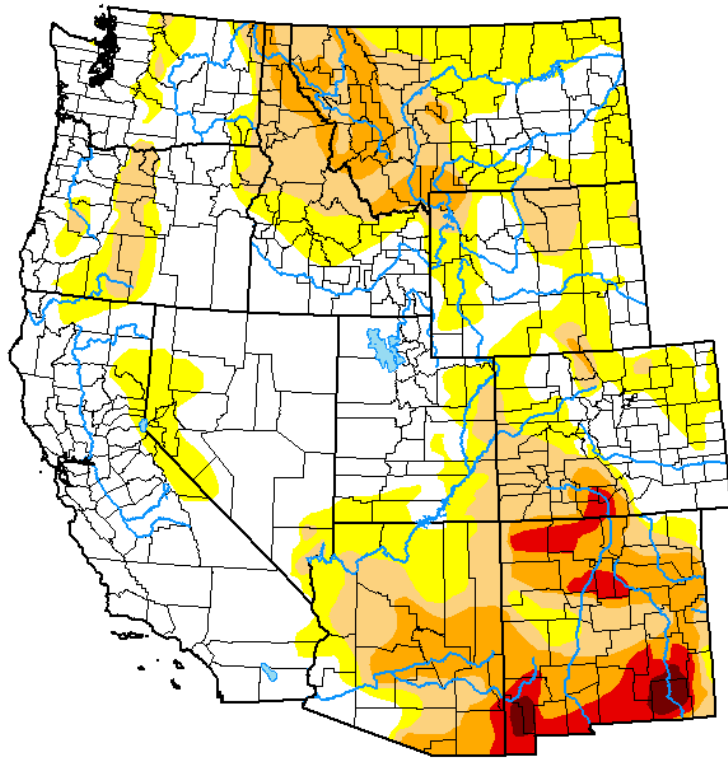


NOAA / Colorado Basin River Forecast Center / 2024-02-07 19:00Z



U.S. Drought Monitor West

January 30, 2024
(Released Thursday, Feb. 1, 2024)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	48.00	52.00	29.27	13.77	3.31	0.57
Last Week <i>01-23-2024</i>	48.32	51.68	28.73	13.79	4.31	0.57
3 Months Ago <i>10-31-2023</i>	57.04	42.96	30.63	17.65	5.18	0.76
Start of Calendar Year <i>01-02-2024</i>	51.19	48.81	25.08	13.17	4.67	0.66
Start of Water Year <i>09-26-2023</i>	55.99	44.01	31.24	17.70	6.09	0.70
One Year Ago <i>01-31-2023</i>	18.89	81.11	60.55	28.83	6.38	0.14

Intensity:

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

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

Author:

Brian Fuchs
National Drought Mitigation Center

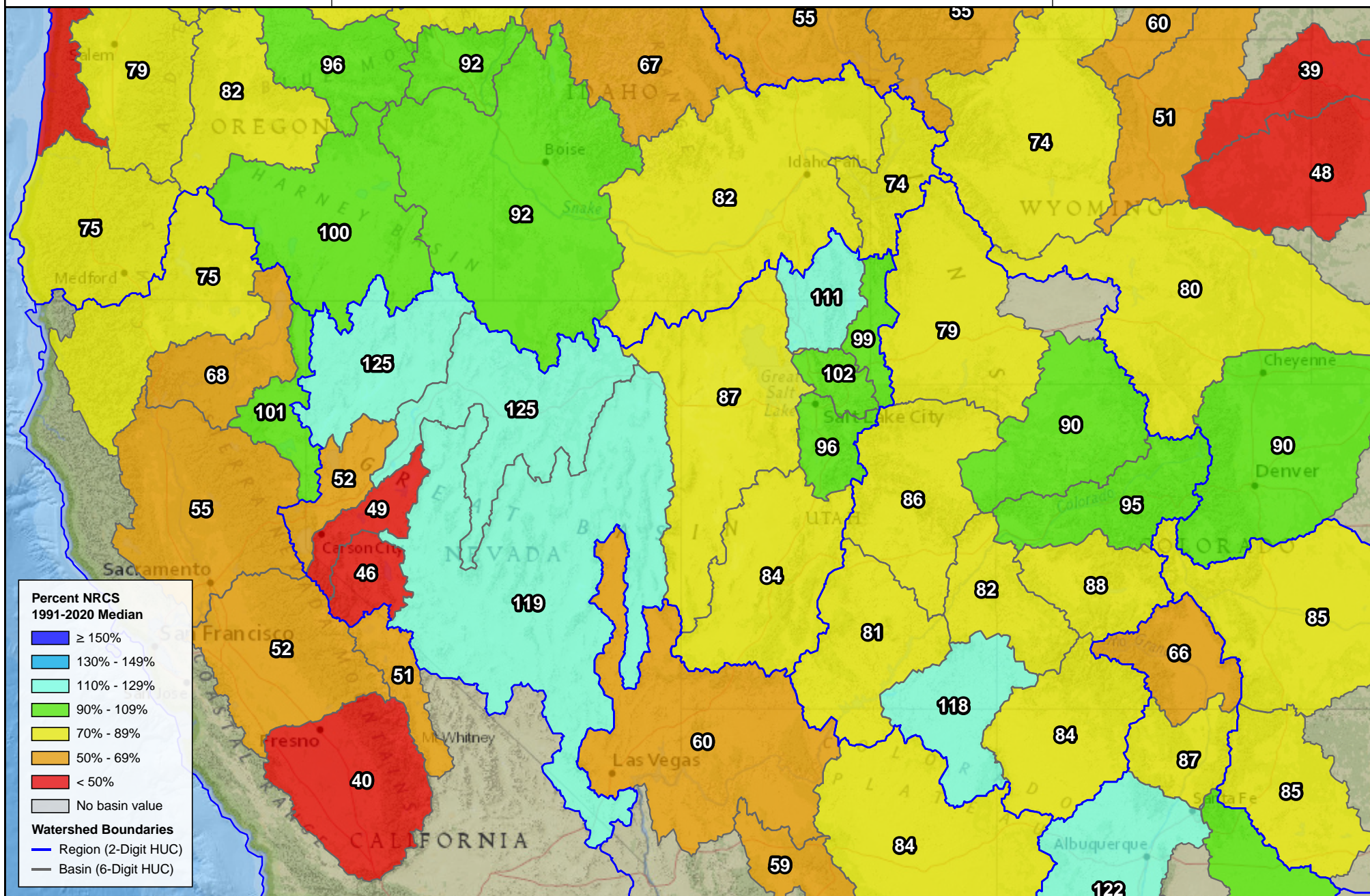


droughtmonitor.unl.edu

Snow Water Equivalent

Percent NRCS 1991-2020 Median

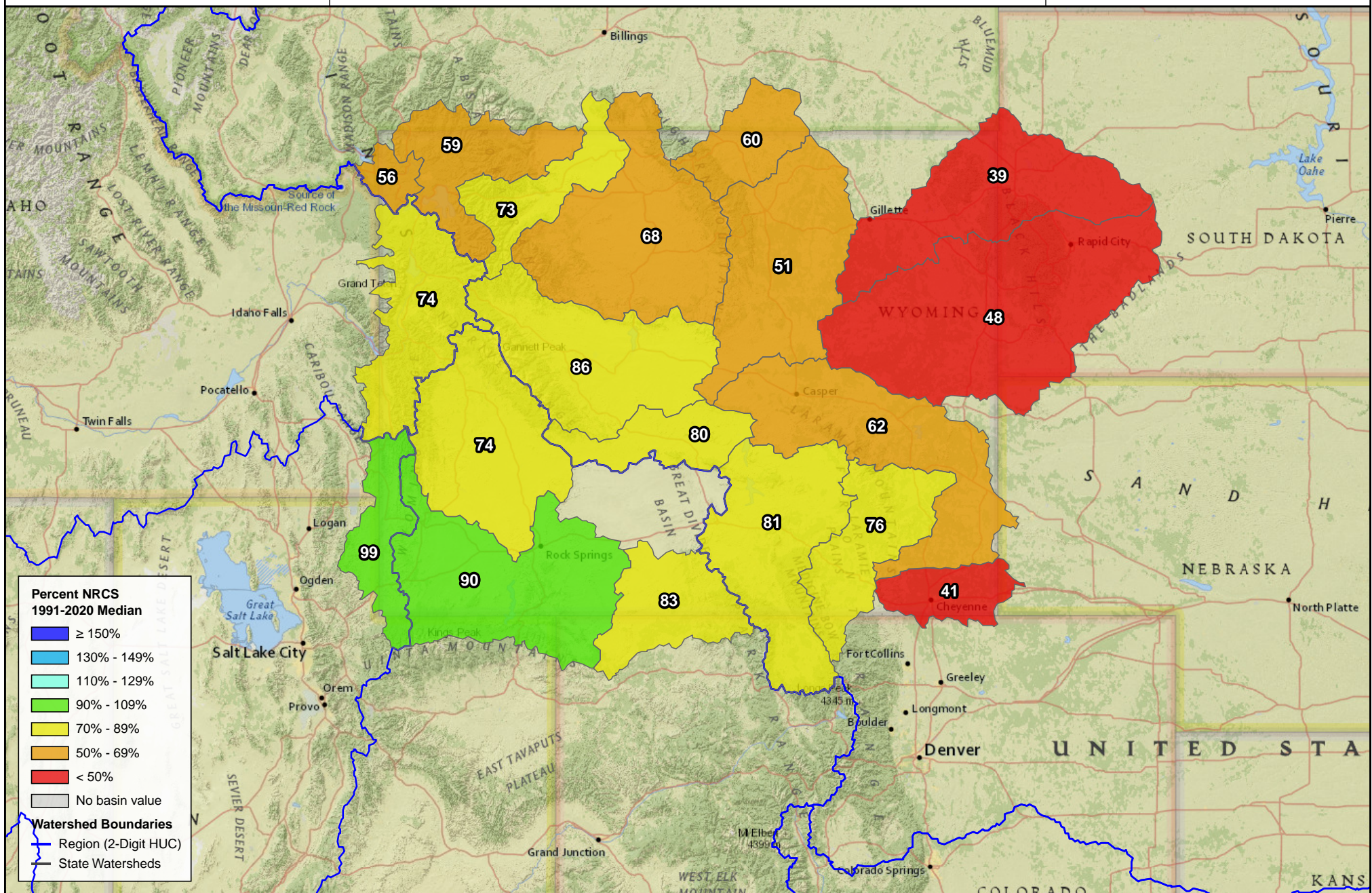
February 1st, 2024



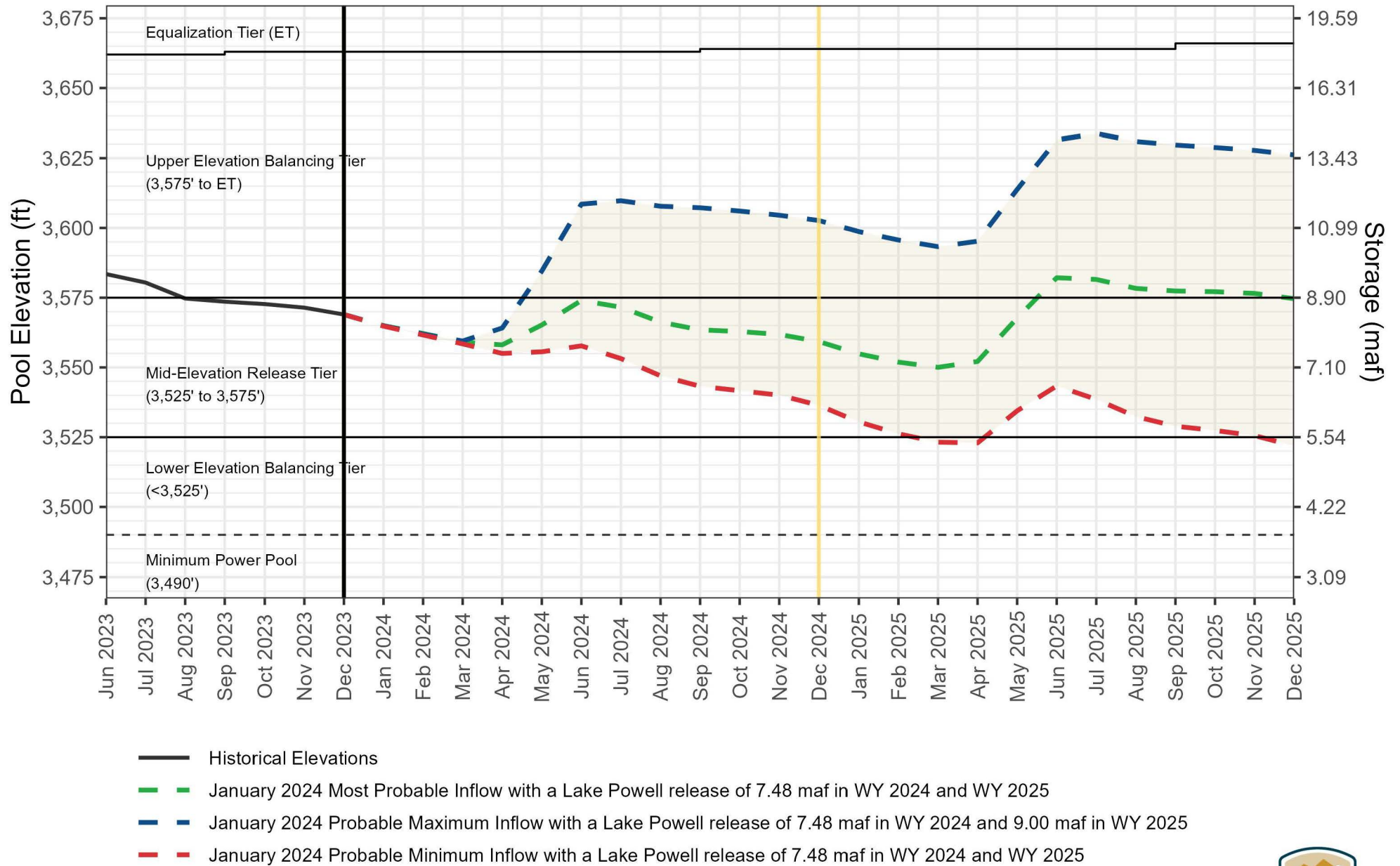
Snow Water Equivalent

Percent NRCS 1991-2020 Median

February 1st, 2024



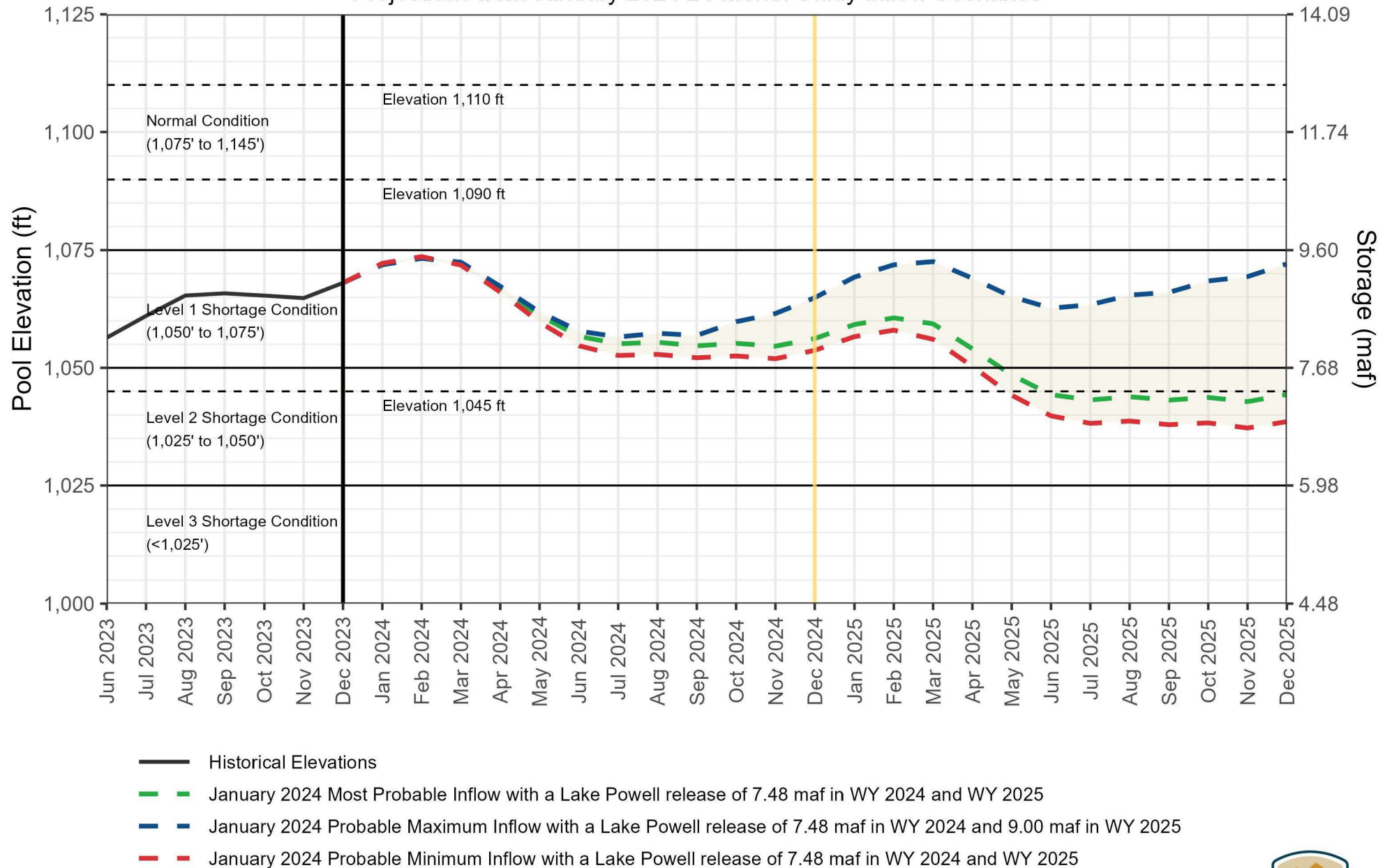
Lake Powell End-of-Month Elevations Projections from January 2024 24-Month Study Inflow Scenarios



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

Lake Mead End-of-Month Elevations

Projections from January 2024 24-Month Study Inflow Scenarios



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

Precipitation Statistics (period of record: 1981-current)

Statewide as of 02/03/2024

Water Year to Date: **11.27"**

% of Average: **89%**

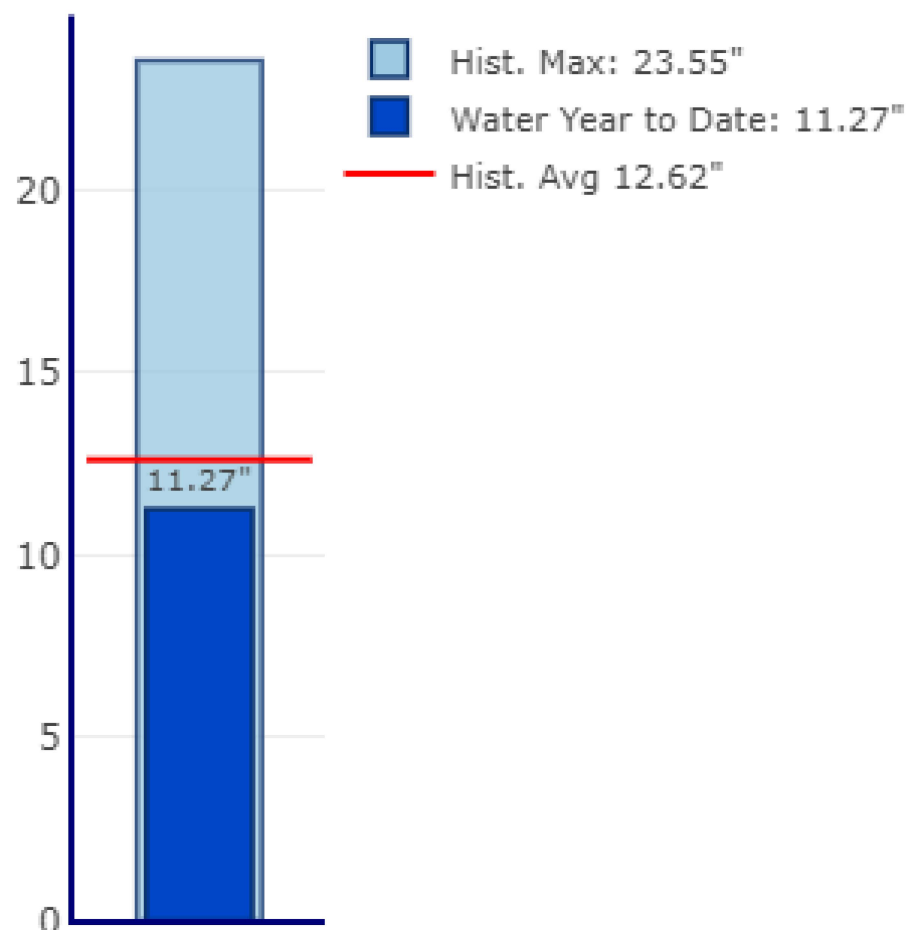
Precipitation % of average for
full water year through
September 30th: **48%**

Historical Record to Date:

Max: **23.55"**

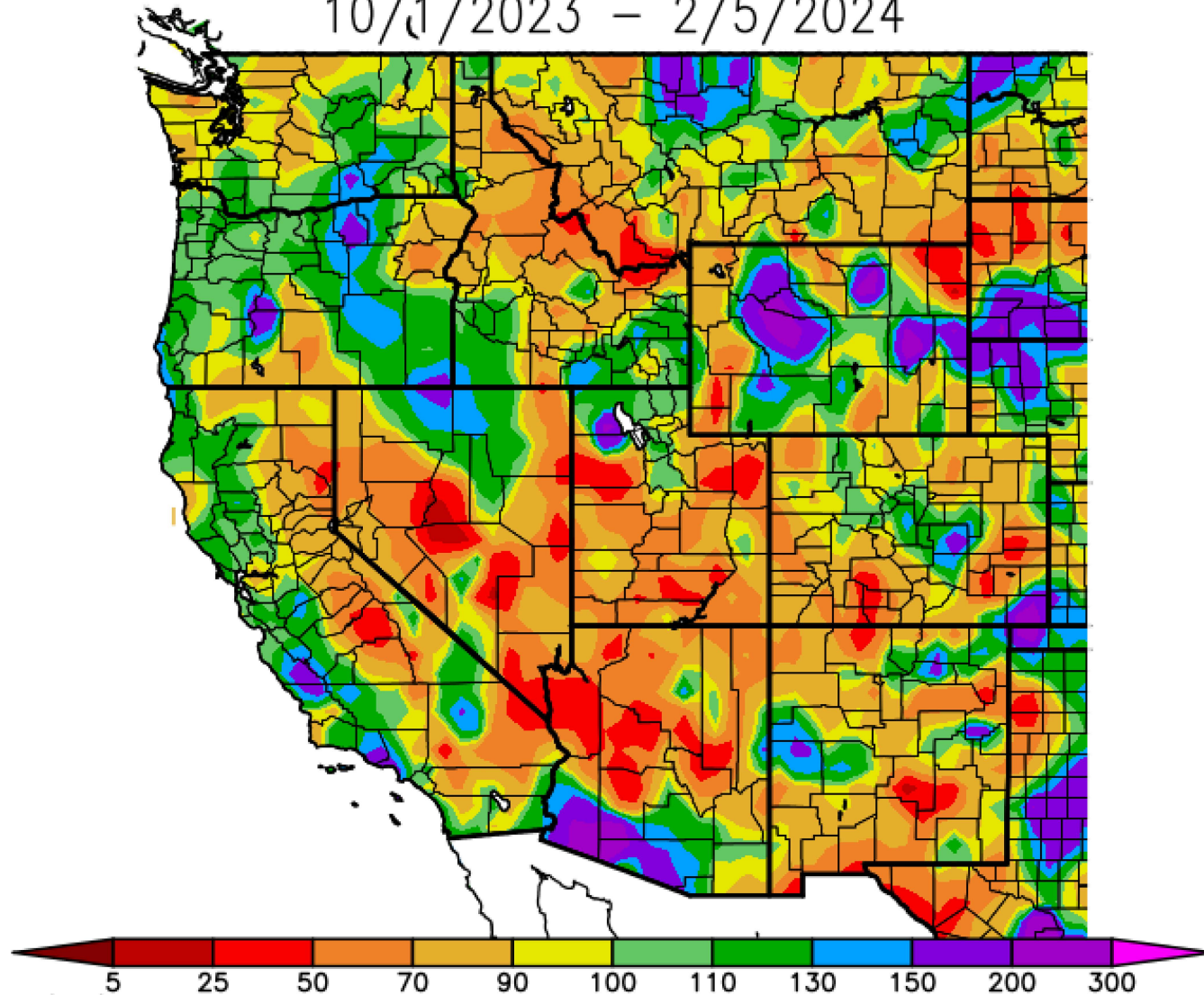
Mean: **12.62"**

Min: **2.39"**



Precipitation for water year to date is
89% of historical average

Percent of Average Precipitation (%) 10/1/2023 – 2/5/2024



Generated 2/ 6/2024 at WRCC using provisional data.
NOAA Regional Climate Centers

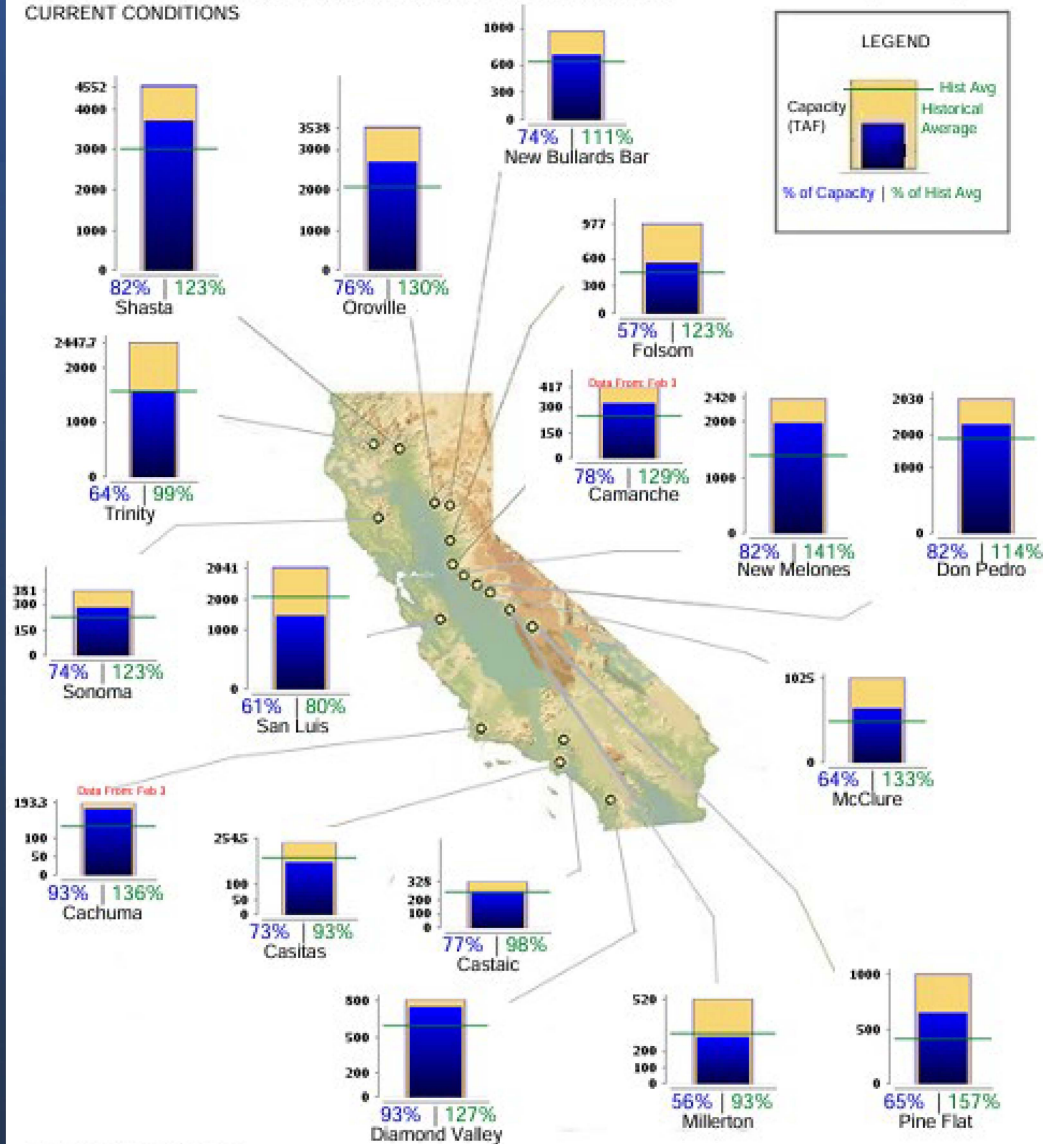


CURRENT RESERVOIR CONDITIONS

CALIFORNIA MAJOR WATER SUPPLY RESERVOIRS

Midnight - February 4, 2024

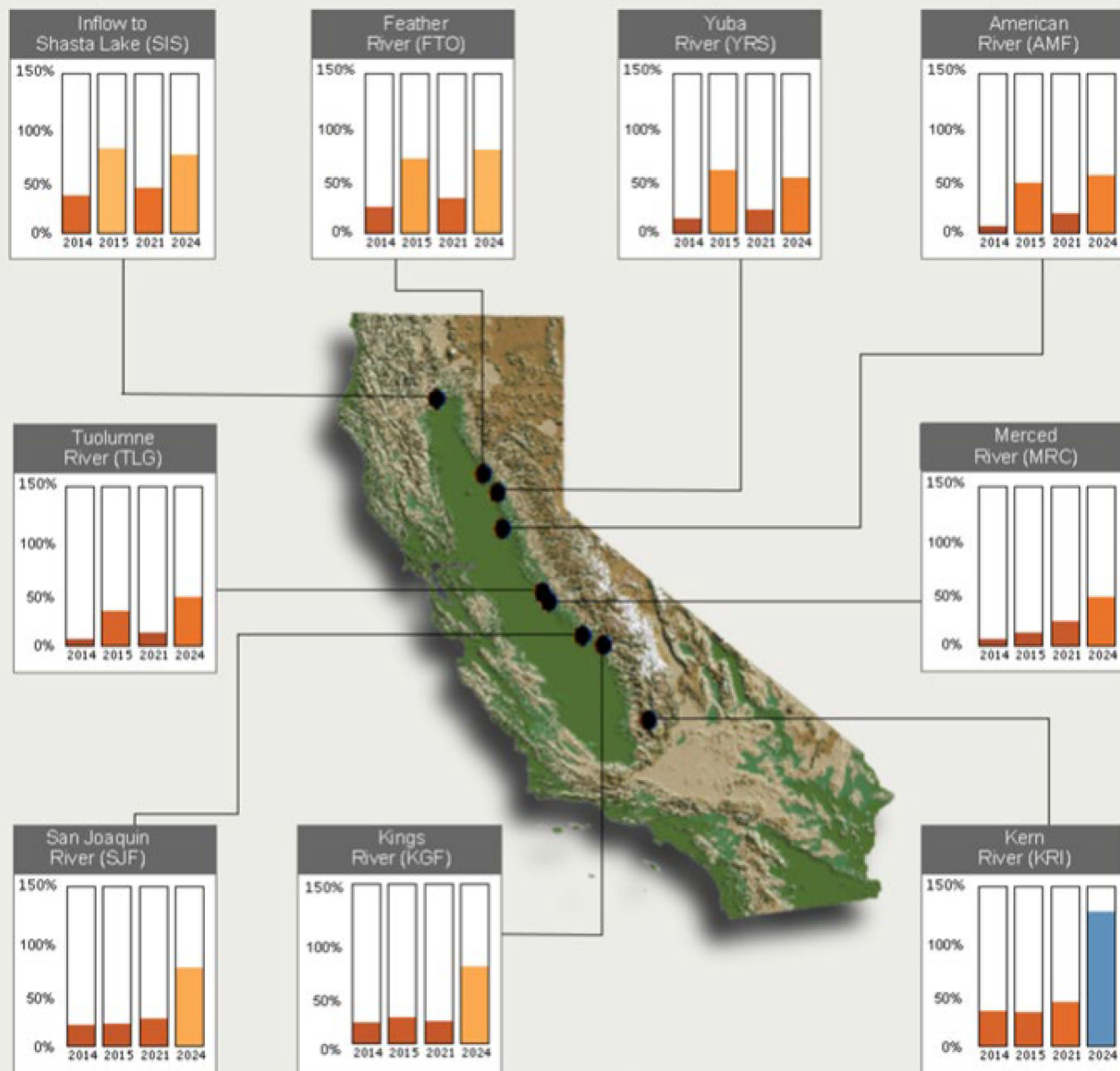
CURRENT CONDITIONS



Full Natural Flow at DWR Forecast Points on Selected California Rivers

Shown as a Percent of Average to Date

Data as of Midnight: 04-Feb-2024



(XYZ) = CDEC Station ID

Date Created: 02/05/2024



STATEWIDE SNOW WATER CONTENT

CURRENT REGIONAL SNOWPACK FROM AUTOMATED SNOW SENSORS

% of April 1 Average / % of Normal for This Date



NORTH

Data as of February 5, 2024

Number of Stations Reporting	25
Average snow water equivalent (Inches)	14.7
Percent of April 1 Average (%)	51
Percent of normal for this date (%)	79

CENTRAL

Data as of February 5, 2024

Number of Stations Reporting	50
Average snow water equivalent (Inches)	12.5
Percent of April 1 Average (%)	46
Percent of normal for this date (%)	71

SOUTH

Data as of February 5, 2024

Number of Stations Reporting	25
Average snow water equivalent (Inches)	9.7
Percent of April 1 Average (%)	42
Percent of normal for this date (%)	65

STATE

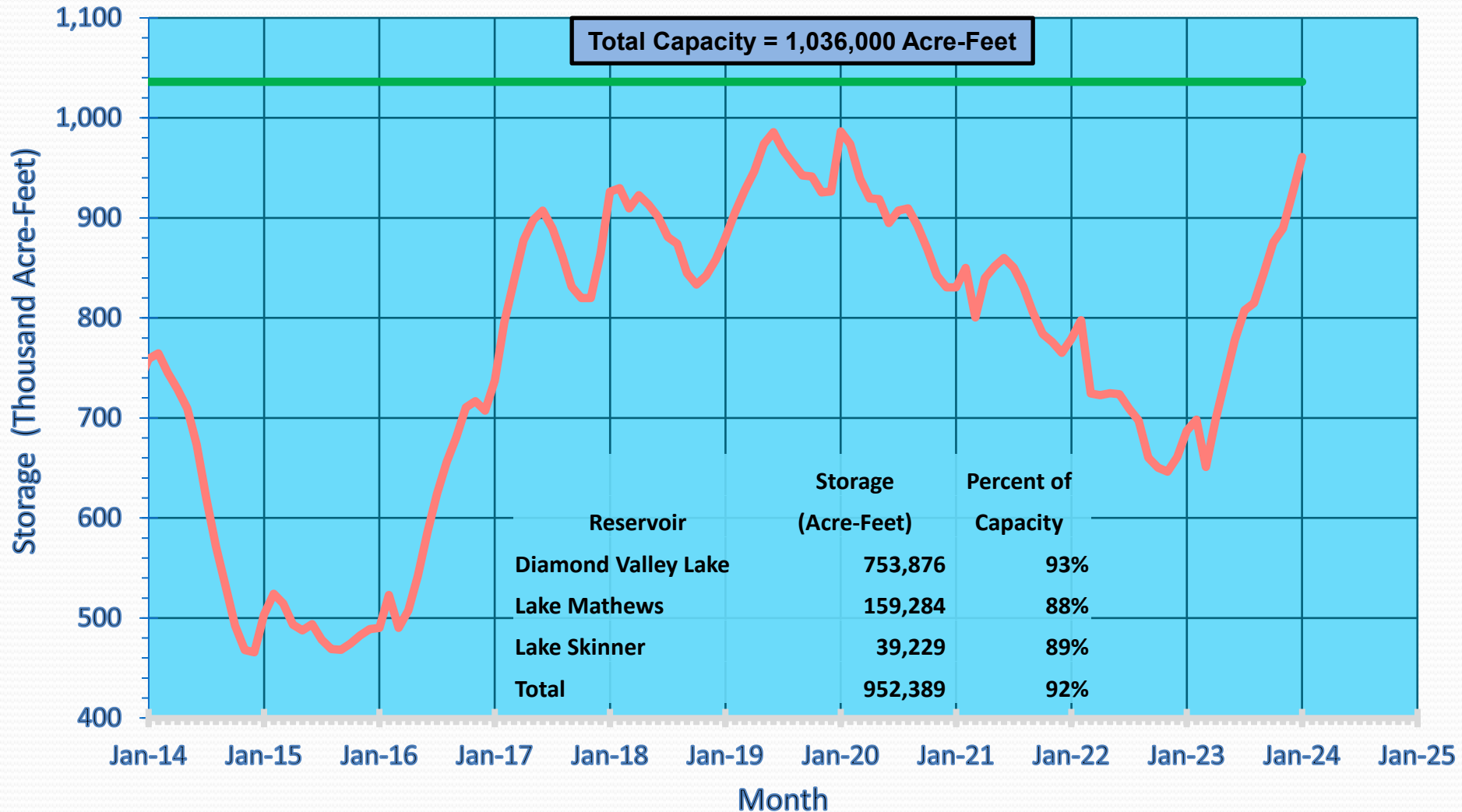
Data as of February 5, 2024

Number of Stations Reporting	100
Average snow water equivalent (Inches)	12.3
Percent of April 1 Average (%)	47
Percent of normal for this date (%)	72

Statewide Average: 47% / 72%

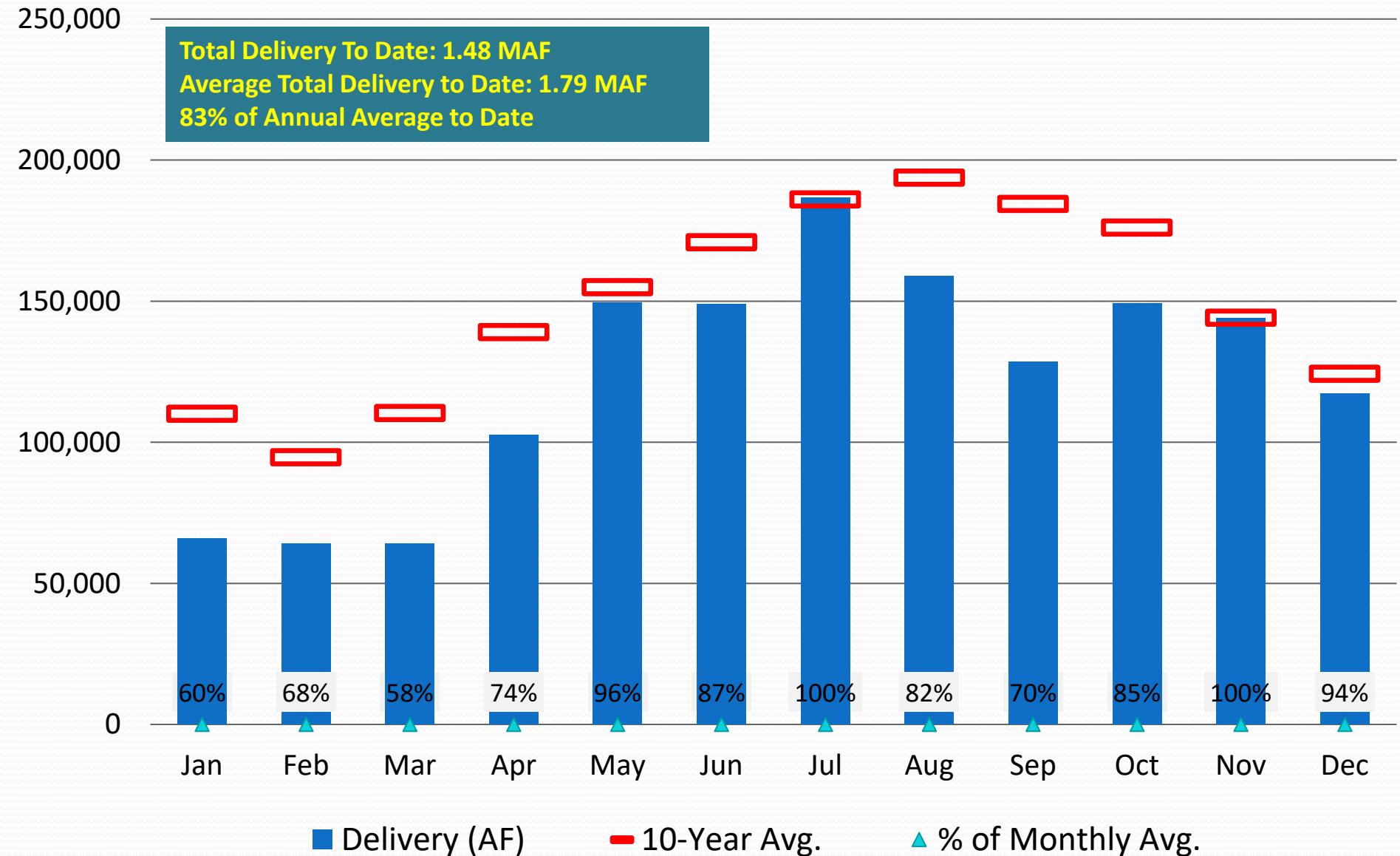
MWD's Combined Reservoir Storage as of February 1, 2024

Lake Skinner, Lake Mathews, and Diamond Valley Lake

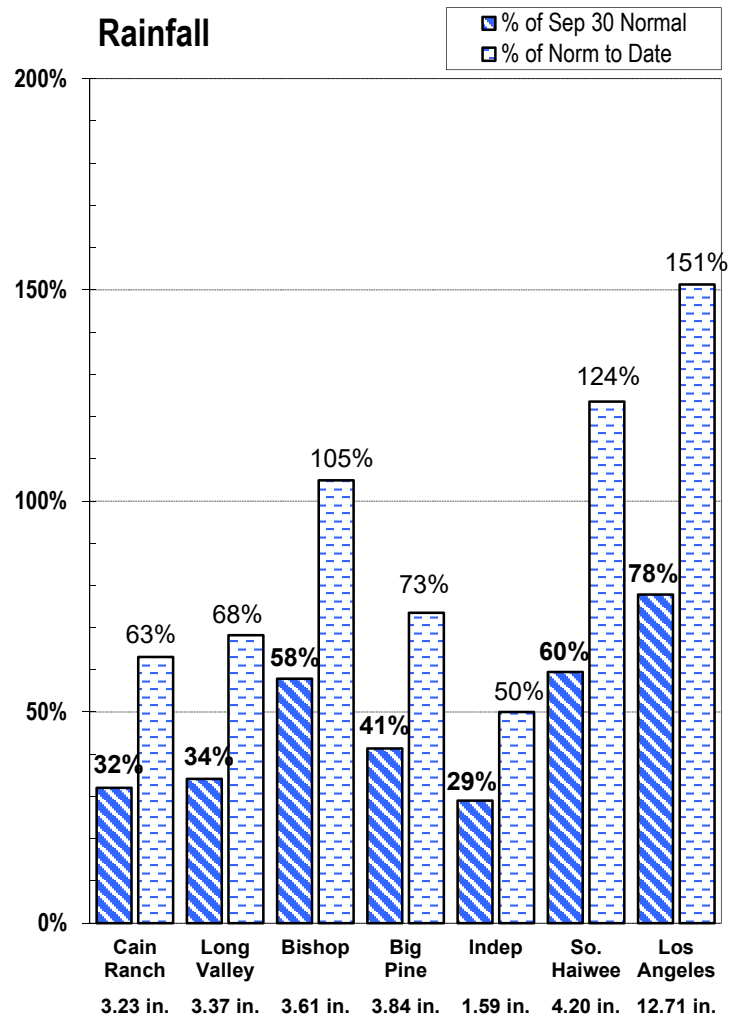
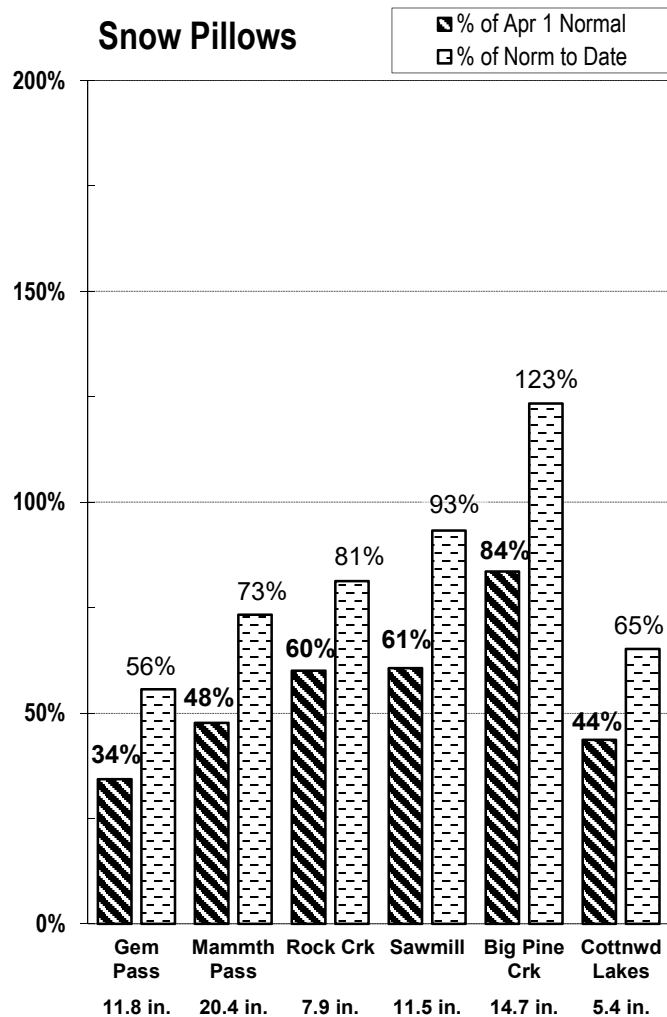
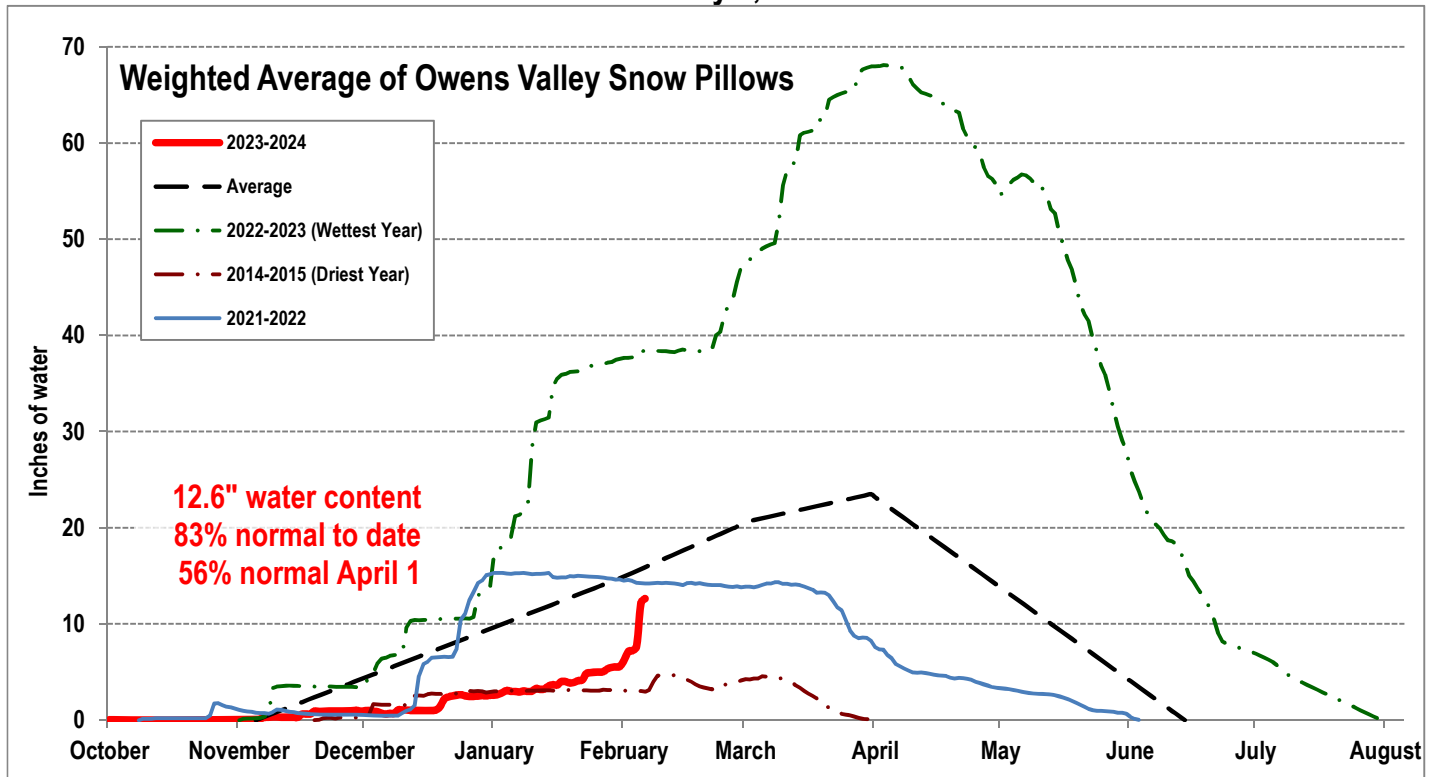


2023 Water Deliveries to Agencies (AF)

Total Delivery To Date: 1.48 MAF
Average Total Delivery to Date: 1.79 MAF
83% of Annual Average to Date



EASTERN SIERRA CURRENT PRECIPITATION CONDITIONS February 6, 2024



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



Bureau of Reclamation News Release

For Release: Feb. 7, 2024

Contact: Upper Colorado Basin Public Affairs, ucbpao@usbr.gov

Reclamation formally advances options to counter threat of nonnative fish in Colorado River below Glen Canyon Dam

Environmental process identifies and analyzes a range of releases from the dam to disrupt spawning of smallmouth bass; effort also considers revising protocol for high-flow experiments

PAGE, Ariz. – The Bureau of Reclamation today released a draft Supplemental Environmental Impact Statement (SEIS) that analyzes varying the timing of water released from Glen Canyon Dam to disrupt the downstream establishment of nonnative fish, primarily smallmouth bass.

This document supplements the 2016 Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP) Final Environmental Impact Statement (FEIS) and Record of Decision. [Glen Canyon Dam impounds Lake Powell, the largest](#) storage unit of the Colorado River Storage Project.

The proposed updates to the 2016 LTEMP FEIS are in response to increasing numbers of warmwater predatory fish below Glen Canyon Dam, which can prey on native fish threatened under the Endangered Species Act. As Lake Powell's elevation has declined, the epilimnion (the warmest, top-most layer of the reservoir), where these nonnative, warmwater predators reside, has become closer to the dam's water intakes. As a result, warmwater predatory fish are more likely to pass through the dam into the Colorado River.

When water from this layer is discharged downstream, it increases the temperature of the river just below the dam, creating ideal spawning conditions for nonnative, warmwater fish that pose a threat to native species, including the federally threatened humpback chub.

A range of reservoir releases with varying combinations of temperature are analyzed in the draft SEIS to assess their effectiveness in disrupting and preventing further smallmouth bass spawning and survival.

"If these predatory, nonnative fish become fully established downstream of Glen Canyon Dam, they may threaten the great progress we have made in recovering the humpback chub," said **Reclamation Upper Colorado Basin Regional Director Wayne Pullan**. "Because eradicating an established invasive species is expensive and extraordinarily difficult, it is important that we have these tools—this range of reservoir releases—analyzed in this SEIS available to us before the 2024 spawning season."

High-Flow Experiments

The SEIS also includes potential modification of the protocol for conducting high-flow experiment (HFE) releases. The natural condition of the Colorado River, especially through the Grand Canyon, includes sandbars and beaches formed by river-transported sediment. Beaches and sandbars are important for recreation, habitat and protection of cultural resources. Because the river's natural sediment drops out of the river in Lake Powell, the water released from Glen Canyon Dam is largely sediment-free. In order to build and maintain sandbars and beaches, the LTEMP includes HFEs to transport sediment in the river below the dam. The SEIS examines a broader window for assessing sediment available for beach-building which may facilitate more spring HFEs. HFE releases do not change annual volumes released from Glen Canyon Dam.

Background

Reclamation undertook an Environmental Assessment (EA) in August 2022. The [draft EA, entitled Glen Canyon Dam/Smallmouth Bass Flow Options](#), was released for public comment on February 24, 2023. Based on the EA and the nearly 7,000 comments received, Reclamation concluded that additional analysis was warranted.

Since June 2023, Reclamation has been preparing an SEIS with input and coordination with federal agencies, states, tribes, cooperating agencies, stakeholders and other interested parties. The draft SEIS incorporates comments submitted during a public scoping period and the public comment period associated with the original EA.

Public Involvement

The draft LTEMP SEIS will be published in the *Federal Register* on Friday, Feb. 9, 2024, formally initiating the 45-day public comment period. Reclamation will host three virtual public meetings to provide information and answer questions. To register for a virtual meeting, submit written comments, or for more information, visit the project's website: <https://www.usbr.gov/uc/progact/amp/index.html>.

The LTEMP draft SEIS involves the timing of hourly, daily, monthly and experimental releases from Glen Canyon Dam and not annual releases. Annual releases are determined by the 2007 Colorado River operating guidelines. These 2007 guidelines are being revised through their expiration at the end of 2026. A separate, ongoing [post-2026 planning process](#) will develop guidelines for when the current interim guidelines expire.



Bureau of Reclamation News Release

For Release: Feb. 8, 2024

Contact: Michelle Helms 702-726-1921 mhelms@usbr.gov

Reclamation publishes overview of Colorado River evaporation history

BOULDER CITY, Nev. - The Bureau of Reclamation today published an overview of historical natural losses along the lower Colorado River. The Mainstream Evaporation and Riparian Evapotranspiration report looks at water surface evaporation, soil moisture evaporation, and plant transpiration. It will be used by Reclamation as a source of data as it manages regional water operations and to improve the agency's modeling efforts.

"Reclamation's approach to water management in the Colorado River Basin and across all Reclamation states is based on best available science, transparency, and inclusivity," said Reclamation Commissioner Camille Calimlim Touton. "The release of the Mainstream Evaporation and Riparian Evapotranspiration study today evidences this commitment by informing our partners and the public about river and reservoir evaporation and transpiration in the Colorado River Basin."

The report provides an overview of average mainstream losses from both river and reservoir evaporation, as well as the evaporation and transpiration associated with vegetation and habitats along the river. The report states that approximately 1.3-million-acre feet of losses occur annually along the lower Colorado River mainstream. Based on data from 2017 to 2021, approximately 860,000 acre-feet of Colorado River water is lost to evaporation occurring annually from Lake Mead to the border with Mexico. A further 445,000 acre-feet is lost to evaporation and transpiration from natural vegetation and habitats.

Reclamation is committed to addressing the challenges of climate change and drought in the Colorado River Basin, using science-based, innovative strategies. As Reclamation continues working cooperatively with the basin states, tribes, stakeholders, partners, and the public who rely on the Colorado River, we are also deploying [historic funding and resources from President Biden's Investing in America agenda](#) that increase near-term water conservation, build long term system efficiency, and prevent the Colorado River System's reservoirs from falling to critically low elevations that would threaten water deliveries and power production. As a result of the

commitment to record volumes of conservation in the Basin, as well as recent hydrology, [the Interior Department announced in October 2023 that the chance of falling below critical elevations has been reduced to eight percent at Lake Powell and four percent at Lake Mead through 2026. Lake Mead is currently](#) about 40 feet higher than it was projected to be at this time last year.

The [Mainstream Evaporation and Riparian Evapotranspiration report](#) is available on the Reclamation website.

###



February 14, 2024

BOARD AGENDA MEMORANDUM

Other Business

SUBJECT Organizational Assessment for the Colorado River Board of California
AGENCY Colorado River Board of California
PRESENTER JB Hamby, Chairman
Jim Madaffer, Vice Chairman

Background

With the higher turnover of Colorado River Board of California (CRB) members, staff, and member agency staff over the past several years and the increased CRB activity and involvement in federal and basinwide Colorado River discussions critical to California's water rights, the board may consider the initiation of an organizational assessment to enhance the organization's capacity to address current and future member agency needs and ensure appropriate representation for the state. This engagement may be particularly timely considering the critical post-2026 issues already underway and future succession planning. The organizational assessment is proposed to be funded and administered through the Six Agency Committee, Colorado River Authority, or through other agency contributions.

Leading Resources Incorporated (LRI), a management consulting firm experienced in developing high-performance organizations with extensive public agency experience, was contacted to provide a draft scope of work for a comprehensive assessment of CRB's organizational needs and to develop a strategic work plan. This process is aimed at working to implement best practices for improving governance, operations, and overall effectiveness in fulfilling CRB's mission and supporting its member agencies. The initial LRI scope includes the following tasks and deliverables:

1. Gather Background Information

- Read background material to appreciate history and current state of the CRB.
- Schedule and conduct interviews with board members, executive director, and others as designated. (Assumes 20 interviews.)
- Prepare notes.

2. Develop Assessment and Workplan Findings

- Prepare a draft organizational assessment and proposed work plan.
- Share with leadership and gather feedback.
- Refine and finalize.

3. Facilitate Meeting with Leadership

- Facilitate meeting with board or designated committee to discuss assessment and proposed work plan.

- Prepare meeting synopsis.
- 4. **Provide Written Organizational Assessment and Proposed Phase II Work Plan and Budget**

Core questions to be explored in this first phase would include:

1. In what ways could the CRB more effectively deliver on its mission?
2. In what ways could the organization potentially improve its governance and operations?
3. What are the roles and responsibilities of the Board, the Board chairman, and the executive director, and are they appropriately integrated?
4. How are the goals and work priorities of the CRB established? What is the system for accountability and continuous improvement? Are these processes well defined or would additional clarifications improve these processes?
5. Are there other organizational needs that should be addressed to improve CRB governance and operations?
6. Based on any proposed recommendations, what would be the appropriate next steps?
7. What are the implications of any recommendations in terms of existing resources and funding, and what additional CRB capacity is needed, if any?

Financial Impact

The proposed cost of the Phase I organizational review is \$13,000.

Recommendation

Discussion and potential direction to:

- A. Proceed with LRI and request the Six Agency Committee or Colorado River Authority cover the cost; or
- B. Proceed with LRI and request member agencies jointly cover the cost independently and for the benefit of the Colorado River Board.