

October 27, 2022

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

NOTICE IS HEREBY GIVEN pursuant to the call of the Chairperson, Peter Nelson, by the undersigned Executive Director of the Colorado River Board of California that a regular meeting of the Board Members is to be held as follows:

Date: Wednesday, November 9, 2022
Time: 10:00 a.m.
Place: Sheraton Ontario Airport Hotel
Orchid Room
429 North Vineyard Avenue
Ontario, CA 91764

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, Mr. Peter Nelson, 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.



Christopher S. Harris
Executive Director

Regular Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, November 9, 2022
10:00 a.m.

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.

- 1. Call to Order**
- 2. Opportunity for the Public to Address the Board** (Limited to 5 minutes)
- 3. Administration**
 - a. Consideration and approval of September 14, 2022, Board meeting Minutes (**Action**)
 - b. Consideration and approval of October 12, 2022, Board meeting Minutes (**Action**)
 - c. Review of 2023 Board Meeting Schedule (**Information**)
- 4. Colorado River Basin and Local Water Supply Reports and Agency Updates**
- 5. Colorado River Basin Programs Staff Reports**
- 6. Executive Session¹**
- 7. Other Business**
- 8. Future Agenda Items/Announcements**

Next Scheduled Board Meeting:	December 14, 2022 10:00 a.m., Pacific Caesar's Palace Las Vegas, NV 89109
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¹ An Executive Session may be held by the Board pursuant to provisions of Article 9 (commencing with Section 11120) of Chapter 1 of Part 1 of Division 3 of Title 2 of the Government Code and Sections 12516 and 12519 of the Water Code to discuss matters concerning interstate claims to the use of Colorado River System waters in judicial proceedings, administrative proceedings, and/or negotiations with representatives from the other Basin states or federal government.

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

A meeting of the Colorado River Board of California (Board) was held on Wednesday, September 14, 2022, at the Sheraton Ontario Airport Hotel, 429 North Vineyard Avenue, Ontario, California 91764.

Board Members and Alternates Present:

David De Jesus (MWD Alternate)
Dana B. Fisher, Jr. (PVID)
John B. Hamby (IID)
Jeanine Jones (DWR Designee)
Delon Kwan (LADWP Alternate)

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

Board Members and Alternates Absent:

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

Christopher Hayes (DFW Designee)
David Vigil (DFW Alternate)

Others Present:

Steve Abbott
Nick Bahr
Jim Barrett
JR Echard
Tom Gibson
Chris Harris
Joanna Hoff
Ned Hyduke
Rich Juricich
Lisa Lien-Mager
Tom Levy
Dwight Lomayesva
Aaron Mead

Jessica Neuwerth
Robert Page
Shana Rapoport
Angela Rashid
David Rheinheimer
Kelly Rodgers
Shanti Rosset
Tom Ryan
Alexi Schnell
Tina Shields
Gary Tavetian
Margaret Vick
Chene Watte
Jerry Zimmerman
Robert Cheng

CALL TO ORDER

Chairman Nelson announced the presence of a quorum and called the meeting to order at 10:09 a.m.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

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

ADMINISTRATION

Chairman Nelson asked for a motion to approve the August 10, 2022, Board meeting minutes. Mr. Madaffer moved that the minutes be approved, seconded by Mr. Peterson. By roll-call vote, the minutes were unanimously approved.

COLORADO RIVER BASIN WATER REPORTS

Colorado River Basin Report

Mr. Juricich reported that as of September 12th, the water level at Lake Powell was 3,530.11 feet with 5.84 million-acre feet (MAF) of storage, or 25% of capacity. The water level at Lake Mead was 1,043.85 feet with 7.25 MAF of storage, or 28% of capacity. The total system storage was 19.74 MAF, or 34% of capacity, which is 3.65 MAF less than system storage at this time last year.

Mr. Juricich reported that as of September 1st, for Water Year-2022 (WY-2022), the observed August inflow to Lake Powell was 0.37 MAF, or 98% of normal. The September inflow forecast to Lake Powell is 0.24 MAF, or 69% of normal. The forecasted unregulated inflow into Lake Powell for WY-2022 is 6.08 MAF, or 63% of normal and the observed WY-2022 April to July inflow to Lake Powell is 3.75 MAF, or 59% of normal. Mr. Juricich reported that overall precipitation conditions in the Upper Colorado River Basin were 99% of normal.

Mr. Juricich reported on a graphic that shows the Upper Colorado Basin April 1 snow anomaly. He stated that the graphic shows the percent difference from the average. He noted

that starting around the year 2000 there has been more below normal snow water content than above-normal years.

Mr. Juricich presented an updated table showing Lower Basin Side Inflows for August 2022, noting that 2022 summer monsoonal activity increased intervening flows by 283%. Mr. Juricich also showed a photograph of flood damage in Moab, Utah due to monsoonal activity.

Mr. Juricich reported that through the beginning of September, the Brock and Senator Wash regulating reservoirs captured 73,574 AF and 53,901 AF, respectively. He also reported that the excess deliveries to Mexico were 2,425 AF. Finally, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 97, 366 AF.

State and Local Report

Ms. Jones, representing the California Department of Water Resources (DWR), reported the State's WY-2022 precipitation to date is 74% of historical average and the statewide reservoir storage was close to 70% of average.

Ms. Jones displayed a chart showing record-breaking temperatures that occurred during the statewide heatwave in September 2022, noting that the heatwave impacted other states in the West. She stated that record temperatures occurred in parts of the North Coast and the Bay Area.

Board member Peterson, representing The Metropolitan Water District of Southern California (MWD) reported that as of September 1st, MWD's reservoir storage is 64% of capacity. He reported on the shutdown of MWD's Upper Feeder pipeline and that it will be back in service later that day.

Chairman Nelson remarked that California has received criticism for not curtailing its use but lost in this discussion, is the fact that MWD stored 1.3 MAF of water in Lake Mead as Intentionally Created Surplus (ICS). He inquired about how much ICS MWD would receive by the end of 2022. Mr. Peterson responded that it is dependent on its allocation from the State Water Project (SWP), noting that MWD is working on facilities to bring more water to SWP dependent areas within the service area. Mr. Peterson stated that the SWP dependent areas reduced its water use by 75%. Mr. Aaron Mead, an engineer with MWD, stated that 115,000 AF of ICS water will be delivered by the end of the year, although 144,000 was forecasted to be needed at the beginning of 2022.

Mr. Peterson noted that the week that the Santa Ana pipeline was shutdown, MWD received health and safety water from the SWP for the impacted areas.

August 24-Month Study

Mr. Juricich provided an update on results of the August 24 Month-Study published by the Bureau of Reclamation (Reclamation) on August 16. Pursuant to the 2007 Interim Guidelines, the August 2022 24-Month Study projections for January 1, 2023, system storage and reservoir water surface elevations are utilized in determining the operational tiers for the coordinated operations of Lakes Powell and Mead during 2023. The August 2022 24-Month Study also sets operational targets for Lake Mead operations pursuant to the Lower Basin Drought Contingency Plan (DCP) Agreement and Minute No. 323.

The Study projects Lake Powell's January 1, 2023, elevation to be 3,505.66 feet based on an 8.23 MAF Lake Powell Release. Lake Powell's operations in WY-2023 will be governed by the Lower Elevation Balancing Tier with an initial projected water year release volume of 7.00 MAF. In April 2023, Reclamation will evaluate hydrologic conditions to determine if balancing releases may be appropriate under the conditions established in the 2007 Interim Guidelines. Because the 2022 operations were designed to protect critical elevations at Lake Powell, Reclamation will implement Lower Elevation Balancing Tier operations in a manner that continues to protect these critical elevations or preserves the benefits of the 2022 operations to protect Lake Powell, in water year 2023. Specifically, Reclamation modeled operations in WY-2023 as follows in the August 24-Month Study:

- The Glen Canyon Dam annual release has initially been set to 7.00 MAF;
- Balancing releases will be limited (with a minimum of 7.00 MAF) to protect Lake Powell from declining below elevation 3,525 feet at the end of December 2023;
- Balancing releases will take into account operational neutrality of the 0.480 MAF that was retained in Lake Powell under the May 2022 action. Any Lake Powell balancing release volume will be calculated as if the 0.480 MAF had been delivered to Lake Mead in WY-2022; and
- The modeling approach for WY-2023 will apply to 2024.

The August 2022 24-Month Study projects the January 1, 2023, Lake Mead elevation, determined as if the 0.480 MAF had been delivered to Lake Mead in water year 2022, to be 1,047.61 feet. Consistent with Section 2.D.1 of the Interim Guidelines, a Shortage Condition consistent with Section 2.D.1.b will govern the operation of Lake Mead for calendar year 2023.

In addition, Section III.B of Exhibit 1 to the Lower Basin DCP Agreement will govern the operation of Lake Mead for CY- 2023. Arizona and Nevada will implement 617 KAF in water savings in CY- 2023 under the 2007 Interim Guidelines and Lower Basin Drought Contingency Plan. California is not required to implement water savings actions under the Guidelines or DCP in 2023. Mexico will implement 104 kaf of water savings under Minute 323 Delivery Reductions and the Binational Water Scarcity Contingency Plan. The 24-Month Study also reflects agreements in place under the 500+ Plan Memorandum of Understanding between entities in the states of Arizona, Nevada, and California signed on December 15, 2021.

RECLAMATION AUGUST 16TH PRESS RELEASE

Mr. Harris described Reclamation's August 16th announcement regarding the initiation of a number of administrative actions to protect the system reservoirs. These actions include:

- Authorize GCD releases less than 7.00 MAF;
- Accelerate maintenance and studies at GCD related to extended use of bypass tubes;
- Support studies to determine if physical modifications are feasible at GCD and Hoover Dam to release water below dead pool;
- Continue to work with Upper Basin and Tribes to implement additional DROA releases;
- Consider other operational actions to establish flexibility in Reclamation's operations in the Upper and Lower Basins;
- Further define reservoir operations at Lake Mead including shortage operations below 1,025 feet;
- Prioritize and prepare additional administrative initiatives ensuring the maximum efficient and beneficial urban and agricultural water use, and address evaporation, seepage, and other system losses in the Lower Basin; and
- Invest in system conservation and other voluntary conservation in both basins.

Board member Madaffer asked what the time frame was for implementing the proposed actions. Mr. Harris stated they would be done by the end of 2024, and the goal was to keep Lake Powell above 3,490-foot elevation.

Ms. Neuwerth described some of the efforts planned to make use of the by-pass tubes. Member Madaffer asked when was the last time the by-pass tubes were used. Ms. Neuwerth responded that they are used regularly for the high flow experiments.

Mr. Nelson asked about the flexibility regarding deliveries to Mexico. Mr. Harris stated that if there were deficiencies in supply to water users in the United States, Mexico would likely bear roughly the same proportional deficiency in supply.

Mr. Nelson asked what authorities Reclamation has to reduce deliveries to Mexico. Mr. Harris responded that the Secretary of the Department of the Interior's authority is limited. The Department of State in consultation with DOI would make the decisions.

Mr. Nelson asked how extraordinary drought was defined in relation to Mexico deliveries. Mr. Harris responded that the term was not clearly defined.

Regarding the 2007 Guidelines, Mr. Nelson stated that we really don't know what the Secretary might do when Lake Mead falls to 1,025 foot elevation. Mr. Harris stated he hopes there is opportunity for some dialogue with Interior on how to address the low reservoir conditions.

Mr. Fisher asked what authorities the Department of Interior has to reduce delivers from Glen Canyon Dam. Mr. Harris responded that we need to determine what authorities Interior has to reduce releases below what is stated in the Guidelines, and that he hopes Interior will work collaboratively with the states to address to drought conditions.

Mr. Madaffer stated that there is a lot of pontification about what to do on the river, but not much action. Mr. Harris stated that it is an indication of the failure in reaching a collaborative agreement on further reductions in water uses basinwide. Interior is hoping that with appropriate levels of funding, they can stimulate or incentivize additional water conservation to help bolster and protect critical elevations in the two reservoirs.

Mr. Madaffer stated that California agencies have proven over a long time that they can conserve water. Other states should look to what California is doing for guidance. Mr. Harris responded that we continue to elevate and highlight all of the work that California has done since the late 1980s in getting our house in order, getting our uses down below 4.4.

Mr. Madaffer stated that it is important for the Board to show its support for agriculture, and that the water transfers conducted in California have been a success, and a model for others to follow.

Mr. Fischer stated that leading up to the DCP there was significant differences between Lower Basin states, and Arizona and Nevada were attacking California. It took about a year, and they finally said, well, can we reengage. And we did. We did a successful DCP negotiation.

EXECUTIVE SESSION

Pursuant to provisions of Article 9, commencing with Section 11120, of Chapter 1 of Part 1, Division 3 of Title 2 of the government Section Program 12516 and 12519 of the Water Code to discuss matters concerning interstate negotiations with representatives from other states or the federal government, a motion was made by Mr. Fisher to go into Executive Session, seconded by Mr. Madaffer. The motion was unanimously approved. The Board entered Executive Session at 10:58 a.m. and adjourned from executive session at 11:43 a.m.

REGULAR SESSION

The Board resumed the regular session at 11:44 a.m. and Chairman Nelson reported that the Board held an Executive Session to discuss interstate and intrastate issues regarding Colorado River issues and no action was taken.

Board member Jones remarked that CRB board members should review Reclamation's M&I Shortage Policy. She noted that Reclamation has invoked the policy in other areas, and it is used as an adaptive policy.

Colorado River Basin Salinity Control Program Implementation

Colorado River Basin Salinity Control Forum Work Group Meeting

Mr. Juricich noted that the Colorado River Salinity Control Work Group meeting is scheduled for September 19-21 in Santa Fe, New Mexico. The Work Group will hear about the effect of drought on hydropower generation at Hoover, Davis, and Parker dams; program benefits; a proposal for covering habitat replacement requirements associated with new salinity control projects; new studies, investigations, and research; and program funding.

Paradox Valley Unit

Mr. Juricich provided an update on the status of the Paradox Valley Unit (PVU) operations. Reclamation restarted injection of brine at PVU as part of a six-month test injection plan on June 1st, 2022. PVU has 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. Under the test injection plan, PVU is injecting brine at a

rate of 115 gallons per minute, equivalent to approximately 5,500 tons of salt control per month (about 66% of the most recent injection capacity). Three months into the test there have been no significant operational issues or seismic events.

Status of the Glen Canyon Dam Adaptive Management Program

Ms. Rapoport reported that the Adaptive Management Work Group (AMWG) of the Glen Canyon Dam Adaptive Management (GCDAMP) met virtually on August 17.

Ms. Rapoport reported that more non-native fish are passing through Glen Canyon Dam than in previous years. Non-native fish being identified below the dam include smallmouth bass, bluegill sunfish, and green sunfish.

Mr. Rapoport reported that response actions to the non-native fish passage through the dam are being contemplated. The non-native fish currently of highest concern is smallmouth bass as they eat the humpback chub, which is an endangered species below the dam. Reclamation is in the process of completing a report on long-term options to prevent passage through the dam, including actions such as a net above the dam or bubblers on the hydropower outlets. The report should be available in about a month.

Ms. Rapoport reported that the Grand Canyon Monitoring and Research Center has also been evaluating the potential for short term experiments to control temperature and flow below the dam to make the habitat less hospitable for non-native fish below the dam. As a more immediate action, the National Park Service is planning to do a chemical treatment in the slough this weekend to try and wipe out the small mouth bass that are there to prevent them from getting flushed downstream.

Ms. Rapoport reported that the program is in the period to consider whether or not to conduct a high flow experiment (HFE) to flush the sediment that has come in over the past few months downstream to rebuild sandbars. There is likely sufficient sediment this year, impacts to other resources are being evaluated.

Mr. Harris asked if an HFE can be fit in volumetrically. Ms. Neuwerth replied that it would be smaller with a maximum capacity of 45,000 CFS. Mr. Harris followed up with an inquiry to confirm the experiment would not mobilize much sediment. Ms. Neuwerth confirmed this was the case. Ms. Rapoport added that the reduced sediment mobility is the issue with a smaller experiment. In order for a flow experiment to be effective, a good slug of water to be released.

The GCDAMP has received criticism from the recreational users and tribes for not having conducted a high flow experiment for some time. Mr. Harris asked if the upper basin states have been critical as well. Ms. Rapoport responded that the upper basin states and the states in general tend to be concerned about the hydropower effects and their costs are going up to run these experiments.

Finally, the Technical Work Group is scheduled to meet October 12th and 13th virtually.

GENERAL ANNOUNCEMENTS

2023 Colorado River Annual Operating Plan

Mr. Harris reported that on September 7th, Reclamation held the third 2023 Colorado River Basin Annual Operating Plan (AOP) consultation meeting which was based on the August 2022 24-Month Study report. He noted that a fourth AOP consultation is scheduled for October 12th and will provide additional clarification on the Drought Response Operation Agreement (DROA) releases in the Upper Colorado River Basin. Mr. Harris noted there are still questions regarding how DROA releases will be characterized in the in the 2023 AOP.

5-Year Operation Study

Mr. Harris reported that on August 31st, Reclamation published results of the August 2022 Colorado River Mid-term Modeling System (CRMMS) two-and-five-year probabilistic projections. CRMMS employed the Ensemble Mode which uses an ensemble of thirty unregulated streamflow forecasts developed by the National Weather Service Colorado Basin River Forecasting Center (CBRFC) using the Ensemble Streamflow Prediction (ESP) forecast for 1991-2020. Mr. Harris reported that the forecast shows a higher probability Lake Mead's elevation will either be mid-elevation or lower elevation balancing tier over the next five years.

Federal Register Notice for Public Input on Federal Meteorological Service

Board member Jones reported that the National Oceanic and Atmospheric Administration (NOAA) has released a federal registered notice asking for essentially research priorities related to weather forecasting. She stated that DWR will be submitting a letter of support of NOAA's efforts and will contribute to the Six Agency Committee's letter of support.

Washington, DC Updates

Water Recycling Projects Selected

Mr. Harris reported that Reclamation announced \$310 million in infrastructure funding for water recycling projects in the western states, primarily in California. He stated that the selected projects will advance drought resilience and are expected to increase capacity by 213,000 AF of water a year.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 11:57 a.m.

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, October 12, 2022

A meeting of the Colorado River Board of California (Board) was held on Wednesday, October 12, 2022, at the Sheraton Ontario Airport Hotel, 429 North Vineyard Avenue, Ontario, California 91764.

Board Members and Alternates Present:

David De Jesus (MWD Alternate)
Dana B. Fisher, Jr. (PVID)
John B. Hamby (IID)
Jeanine Jones (DWR Designee)
Delon Kwan (LADWP Alternate)
Peter Nelson, Chairman (CVWD)

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

Board Members and Alternates Absent:

Gary Croucher (SDCWA Alternate)
Castulo Estrada (CVWD Alternate)
James Hanks (IID Alternate)
Christopher Hayes (DFW Designee)

Jim Madaffer (SDCWA)

Others Present:

Steve Abbott
Nick Bahr
JR Echard
Dennis Davis
Chris Harris
Bill Hasencamp
Joanna Hoff
Michael Hughes
Ned Hyduke
Rich Juricich
Laura Lamdin
Tom Levy

Henry Martinez
Jessica Neuwerth
Kelly Rodgers
Shanti Rosset
Kit San Lai
Alexi Schnell
Tina Shields
Gary Tavetian
Petya Vasileva
Meena Westford
Jerry Zimmerman

CALL TO ORDER

Chairman Nelson announced the presence of a quorum and called the meeting to order at 10:06 a.m.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

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

COLORADO RIVER BASIN WATER REPORTS

Colorado River Basin Report

Mr. Juricich reported that as of October 3rd, the water level at Lake Powell was 3,529.51 feet with 5.81 million-acre feet (MAF) of storage, or 25% of capacity. The water level at Lake Mead was 1,045.15 feet with 7.34 MAF of storage, or 28% of capacity. The total system storage was 19.54 MAF, or 33% of capacity, which is 3.32 MAF less than system storage at this time last year.

Mr. Juricich reported that the summer monsoonal activity created about 200,000 AF more inflow into Lake Mead during July, August, and September, noting that this represents above average intervening inflow. He stated that Lake Mead is about seven feet higher than where it was in June.

Mr. Juricich reported that as of September 16th, for Water Year-2022 (WY-2022), the observed August inflow to Lake Powell was 0.37 MAF, or 98% of normal. The September preliminary observed inflow to Lake Powell is 0.25 MAF, or 71% of normal. The preliminary observed WY-2022 inflow into Lake Powell is 6.08 MAF, or 63% of normal and the observed WY-2022 April to July inflow to Lake Powell is 3.75 MAF, or 59% of normal.

Mr. Juricich reported on the August and September Colorado River Mid-Term Modeling System (CRMMS) report projections. He noted that Lake Powell's elevation is projected to fall below minimum power pool (3,490 ft) by the end next year. He reported that Lake Mead's elevation is projected to decline to around 1,025 feet by the end of next year. He explained that the results reflect the physical elevation, and it does not include the water that has been

held back in Lake Powell. He stated that if precipitation conditions are poor this winter, then the reservoir projections will worsen.

Mr. Juricich reported that through the end of September, the Brock and Senator Wash regulating reservoirs captured 60,333 AF and 85,614 AF, respectively. He also reported that the excess deliveries to Mexico were 4,126 AF, compared to 26,866 AF this time last year. Finally, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 110, 067 AF.

State and Local Report

Ms. Jones, representing the California Department of Water Resources (DWR), reported that the state's WY-2022 precipitation was 76% of average and reservoir storage was 69% of average. She remarked that for the second year in a row, that Central Valley Project (CVP) agricultural contractors have had zero supplies, and its first ever M&I health and safety allocation to the CVP contractors, and there is a 5% allocation on the state water project (SWP).

Ms. Jones reported that the California is in its third year of drought. Dry conditions persist with drought conditions in the Sacramento Valley which is usually the wettest part of the state's developed water supplies. She added that significant rice acreage was not harvested this year because the CVP settlement contractors only received an 18% allocation, which are senior water rights. She added that the SWP Feather River contractors only received a 50% allocation.

Ms. Jones reported that the state's groundwater represents about 60% of California's urban and agricultural use. She stated that groundwater conditions in the San Joaquin Valley are experiencing significant declines on the west side of the Sacramento Valley, which is the area served by Reclamation. Ms. Jones reported that land subsidence due to groundwater extraction continues at a high rate in the southern San Joaquin Valley, which has been experiencing this issue historically.

Board member Peterson, representing The Metropolitan Water District of Southern California (MWD) reported that as of October 1st, MWD's reservoir storage is 63% of capacity. He reported declines in water use due to recent conservation efforts within MWD's service area. He also reported that MWD elected a new chairperson of its Board, Mr. Adan Ortega.

Colorado River Basin States Activities

Mr. Harris reported that on October 5th, the CRB Board and several California contractors sent a letter to the Department of the Interior (DOI) stating that it was California's intention to conserve up to 400,000 AF a year in 2023 to 2026, which is the remainder of the interim period.

The signatories of the letter included Chairman Nelson, general managers of Coachella Valley Water District (CVID), Imperial Irrigation District (IID) and MWD. He stated that the letter emphasized the need for funding for Salton Sea conservation, which would enable California to meet its conservation targets. He added that the letter strongly encourages other parties across the Basin to take actions to voluntarily reduce water use to help stabilize the reservoir system. Mr. Harris remarked that the letter was well received by the DOI, adding that the proposed action is consistent with other activities California has been working on all summer with other Basin States, particularly with Arizona and Nevada, and the action did not vary from the proposals that have been previously discussed.

Mr. Harris stated that California believed that the proposed action outlined in the letter was the right thing to do and provides a path forward for an immediate reengagement of the seven Basin states and the United States in developing additional measures and activities to help stabilize the reservoir system. Mr. Harris and Board member Jones noted the positive news media response.

Colorado River Basin Salinity Control Program Implementation

Colorado River Basin Salinity Control Forum Work Group Meeting

Mr. Juricich summarized the outcomes of the Colorado River Salinity Control Work Group meeting held September 19-21 in Santa Fe, NM. The Work Group discussed several program topics including progress on developing the 2023 Triennial Review of Water Quality Standards for Salinity in the Colorado River System; a proposal to update projected funding associated with the Lower Colorado River Basin Development Funds using the best information on hydropower generation at Hoover, Davis, and Parker dams; program benefits; a proposal for covering habitat replacement requirements associated with new salinity control projects; new studies, investigations, and research; and program funding. The Work Group is also preparing content for the fall meeting of the Salinity Control Forum to be held October 24-26 at South Lake Tahoe, CA.

2023 Triennial Review of Water Quality Standards for Salinity in the Colorado River System

A key topic discussed by the Work Group was initial modeling assumptions for the 2023 Triennial Review of Water Quality Standards for Salinity in the Colorado River System. Modeling assumptions include projected cost effectiveness of program implementation, program implementation rates, program funding, future hydrology, and operations of the Paradox Valley Unit. The current Work Group proposal would include a PVU operation at 65,000 tons/year through 2027 and would consider both full operation and no operation of PVU beyond 2027. The

Forum will review and provide guidance on the modeling assumptions during its Fall meeting. Section 303 of the Clean Water Act amendments to the Federal Water Pollution Control Act requires that water quality standards are reviewed every three years by the Forum and are adopted by the water quality agencies of the seven basin states for inclusion in their state water quality standards.

GENERAL ANNOUNCEMENTS

Washington, DC Updates

FY 2023 Appropriations

Mr. Harris reported that the U.S. Congress passed a continuing resolution (CR) on September 30th to fund the federal government through the beginning of the next fiscal year on October 1st. The CR also included an extension for the CalFed Bay-Delta Authorization Act and extensions for the Emergency Drought Relief Act.

Inflation Reduction Act Implementation

Mr. Harris reported that he had a phone discussion with Commissioner Touton and Deputy Commissioner Palumbo regarding funding opportunities under the Inflation Reduction Act (IRA). He stated that the first category of funding under IRA would be associated with potential water conservation activities in the Colorado River Basin to help stabilize the reservoir system. He stated that funding opportunities announcement would be available on Reclamation's website on October 12th or 13th.

Mr. Harris explained that there will be three categories with three separate tranches of funding. The first category would include \$300 to \$400 per AF of funding for activities such as fallowing or conserving water. The second category would provide funding to agencies or entities to enter into an agreement to do water conservation activities. He explained that this would be a grant funding opportunity and include funding of \$600 to \$700 per AF of conserved water supplies. He added that Reclamation's website will include the grant review criteria. Lastly, he stated that the last category would be the development of an array of capital improvement projects in the agricultural or urban sector that will lead to long-term, permanent, durable, water use reduction. These projects can include waste-to-drinking water recycle, and storm water recapture, all of which would be applicable to the urban sector. For the agricultural sector projects could include regulating reservoirs and canal widening.

Mr. Harris noted that Reclamation hopes to develop the second and third category as applicable programs between now and the end of the year. He remarked that it would be desirable for California to take advantage of all three categories.

House Republic Water Bill

Mr. Harris reported that the House Republicans have introduced a bill, H. R. 9084 that lays out the Republican water agenda dealing with Biological Opinions and funding for enlargement of Shasta Dam. He stated that the bill will also addresses reauthorizing the Water Infrastructure Investment for the Nation (WII) Act.

National Defense Authorization Act (NDAA)

Mr. Harris reported that the NDAA will include water legislation that will target specific programs in the Upper Basin, the native fish recovery program, and public lands.

EXECUTIVE SESSION

Pursuant to provisions of Article 9, commencing with Section 11120, of Chapter 1 of Part 1, Division 3 of Title 2 of the government Section Program 12516 and 12519 of the Water Code to discuss matters concerning interstate negotiations with representatives from other states or the federal government, a motion was made by Mr. Fisher to go into Executive Session, seconded by Mr. Madaffer. The motion was unanimously approved. The Board entered Executive Session at 10:34 a.m. and adjourned from executive session at 11:31 a.m.

REGULAR SESSION

The Board resumed the regular session at 11:31 a.m. and Chairman Nelson reported that the Board held an Executive Session to discuss interstate negotiations and no action was taken.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 11:34 a.m.

Draft 2023 Colorado River Board Meetings

Date	Location	Time
January 11	Ontario	10:00 a.m.
February 15	Ontario	10:00 a.m.
March 15	Ontario	10:00 a.m.
April 12	Ontario	10:00 a.m.
May 10	Ontario	10:00 a.m.
June 14	Ontario	10:00 a.m.
July 12	Ontario	10:00 a.m.
August 9	Ontario	10:00 a.m.
September 13	Ontario	10:00 a.m.
October 11	Ontario	10:00 a.m.
November 15	Ontario	10:00 a.m.
December 13	Las Vegas, Nevada	10:00 a.m.

10/31/2022

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	25%	5,832	3,529.91	7,800
* LAKE MEAD	28%	7,417	1,046.28	7,700
LAKE MOHAVE	80%	1,454	633.76	6,600
LAKE HAVASU	92%	569	447.40	5,800
TOTAL SYSTEM CONTENTS **	33%	19,414		
As of 10/30/2022				
SYSTEM CONTENT LAST YEAR	38%	22,559		

*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	63%	1,448		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	9%	89	1,109.31	25

Forecasted Water Use for Calendar Year 2022 (as of 10/31/2022) (values in kaf)

NEVADA	224	
SOUTHERN NEVADA WATER SYSTEM		210
OTHERS		14
CALIFORNIA	4,401	
METROPOLITAN WATER DISTRICT OF CALIFORNIA		1,134
IRRIGATION DISTRICTS		3,251
OTHERS		16
ARIZONA	2,023	
CENTRAL ARIZONA PROJECT		980
OTHERS		1,043
TOTAL LOWER BASIN USE		6,648
DELIVERY TO MEXICO - 2022 (Mexico Scheduled Delivery + Preliminary Yearly Excess ¹)		1,468

OTHER SIGNIFICANT INFORMATION

UNREGULATED INFLOW INTO LAKE POWELL - OCTOBER MID-MONTH FORECAST DATED 10/19/2022

	MILLION ACRE-FEET	% of Normal
PRELIMINARY OBSERVED WATER YEAR 2022	6.084	63%
OBSERVED APRIL-JULY 2022	3.751	59%
SEPTEMBER OBSERVED INFLOW	0.245	71%
OCTOBER INFLOW FORECAST	0.400	88%

	Upper Colorado Basin	Salt/Verde Basin
WATER YEAR 2023 PRECIP TO DATE ²	83% (1.9")	238% (2.8")
CURRENT BASIN SNOWPACK	NA% (NA)	NA% (NA)

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

²Precipitation values may vary significantly from week-to-week this early in the water year.

LOWER COLORADO BASIN REGION
CY 2022

ARIZONA, CALIFORNIA, NEVADA, MEXICO

FORECAST OF END OF YEAR CONSUMPTIVE USE

FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS¹
(ACRE-FEET)

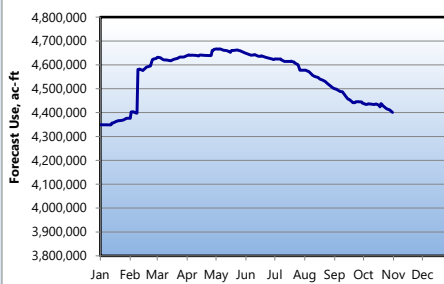
	Use To Date CY 2022	Forecast Use CY 2022	Approved Use ² CY 2022	Excess to Approval CY 2022
WATER USE SUMMARY				
Arizona	1,782,776	2,022,688	2,014,734	7,954
California	3,862,392	4,400,975	4,349,055	51,920
Nevada	206,648	224,268	224,268	0
States Total³	5,851,816	6,647,931	6,588,057	59,874
Total Deliveries to Mexico in Satisfaction of Treaty Requirements ⁴	1,307,892	1,453,214	1,453,214	
Creation of Mexico's Recoverable Water Savings ⁵	29,348	30,000	30,000	
Creation of Mexico's Water Reserve ⁶	1,763	1,763	1,763	
Delivery of Mexico's Water Reserve ⁷	(34,977)	(34,977)	(34,977)	
Total to Mexico in Satisfaction of Treaty Requirements ⁸	1,304,026	1,450,000	1,450,000	
To Mexico in Excess of Treaty ⁹	8,050	15,010	25,039	
Water Bypassed Pursuant to IBWC Minute 242 ¹⁰	121,357	141,294	116,633	
Total Lower Basin & Mexico¹¹	7,289,115	8,257,449	8,182,943	

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 (including delivery from Mexico's Water Reserve), Southerly International Boundary, Limitrophe, and Diversion Channel Discharge; and diversions at Parker Dam for Emergency Delivery to Tijuana; 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 Delivery from Mexico's Water Reserve pursuant to Section V.E.13 of IBWC Minute 323.⁸ 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 2022. 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 Delivery to Mexico in Satisfaction of Treaty Requirements" adds in Mexico's Water Reserve and Mexico's Recoverable Water Savings creation and subtracts out Mexico's Water Reserve and Mexico's Recoverable Water Savings delivery.⁹ Mexico excess forecast is based on the 5-year average for the period 2016-2020.¹⁰ Bypass forecast is based on the average for the period 1990-2020.¹¹ Includes States Total, Deliveries to Mexico in Satisfaction of Treaty, To Mexico in Excess of Treaty, and Water Bypassed Pursuant IBWC Minute 242.

Arizona Forecast



California Forecast



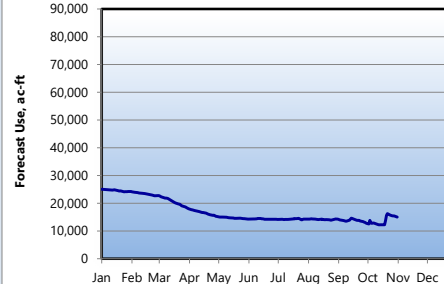
Nevada Forecast



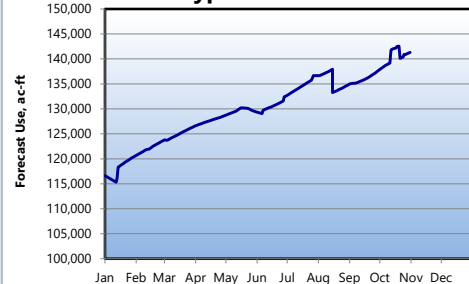
Lower Basin Forecast



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 2022

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

	Use To Date CY 2022	Forecast Use CY 2022	Estimated Use CY 2022	Excess to Estimated Use CY 2022	Diversion To Date CY 2022	Forecast Diversion CY 2022	Approved Diversion CY 2022	Excess to Approved Diversion CY 2022
WATER USER								
Arizona Pumpers	5,743	6,382	6,382	---	8,835	9,818	9,818	0
Lake Mead NRA, AZ - Diversions from Lake Mead	52	59	77	---	52	59	77	-18
Lake Mead NRA, AZ - Diversions from Lake Mohave	185	219	227	---	185	219	227	-8
Bureau of Reclamation - Davis Dam Project	2	2	2	---	14	16	16	0
Bullhead City	5,604	7,130	8,699	---	8,620	11,029	13,730	-2,701
Mohave Water Conservation District	614	739	739	---	916	1,102	1,102	0
Mohave Valley I.D.D. ¹	9,865	11,928	15,059	---	18,268	22,083	27,879	-5,796
Fort Mojave Indian Reservation, AZ	37,753	40,505	44,550	---	69,912	75,009	82,500	-7,491
Golden Shores Water Conservation District	257	286	286	---	386	429	429	0
Havas National Wildlife Refuge	2,933	3,137	3,564	---	24,440	26,835	41,835	-15,000
EPCOR Water Arizona, Inc. - CSA No. 1	492	573	493	---	776	941	997	-56
Lake Havasu City	7,040	8,554	9,052	---	11,354	13,796	14,600	-804
Central Arizona Water Conservation District	825,885	979,546	979,910	---	825,885	979,546	---	---
Town of Parker	315	360	424	---	701	828	917	-89
EPCOR Water Arizona, Inc. - CSA No. 2 (formerly Brooke Water, LLC)	243	293	324	---	363	437	486	-49
Colorado River Indian Reservation, AZ	242,710	247,801	227,832	---	437,622	479,025	510,510	-31,485
Ehrenberg Improvement District	227	252	252	---	317	352	352	0
Arizona State Land Department	2,762	3,473	4,485	---	4,326	5,420	6,900	-1,480
Cibola Valley I.D.D.	5,866	6,391	5,868	---	8,203	8,937	8,205	732
Red River Land Co.	214	218	214	---	299	304	300	4
Western Water, LLC	89	111	379	---	124	156	530	-374
Hopi Tribe	3,261	3,431	3,061	---	4,561	4,799	4,278	521
GSC Farms, LLC	2,113	2,163	2,084	---	2,956	3,025	2,913	112
Arizona Game & Fish	1,992	2,096	2,031	---	2,787	2,931	2,838	93
Cibola National Wildlife Refuge	7,080	7,793	14,264	-6,471	11,420	12,568	23,005	-10,437
Imperial National Wildlife Refuge	2,518	3,152	3,799	-647	4,062	5,084	6,128	-1,044
BLM Permittees (Parker Dam to Imperial Dam)	1,122	1,247	1,247	0	1,727	1,919	1,919	0
Cha Cha, LLC	1,109	1,268	1,365	---	1,706	1,949	2,100	-151
Beattie Farms Southwest	545	647	722	---	839	994	1,110	-116
Yuma Proving Ground	419	465	524	---	419	465	524	-59
Gila Monster Farm	3,775	4,377	4,888	---	6,573	7,664	8,500	-836
Wellton-Mohawk Irrigation and Drainage District	234,147	254,038	278,000	-23,962	336,190	384,969	424,350	-39,381
BLM Permittees (Below Imperial Dam)	98	109	109	0	151	168	168	0
City of Yuma	12,480	15,038	15,833	-795	20,816	25,511	27,500	-1,989
U.S. Marine Corps Air Station Yuma	987	1,141	1,300	---	987	1,141	1,300	-159
Union Pacific Railroad	20	24	29	---	40	48	48	0
University of Arizona	710	800	852	---	710	800	852	-52
Yuma Union High School District	102	122	150	---	136	164	200	-36
Desert Lawn Memorial	23	26	26	---	33	37	37	0
North Gila Valley Irrigation District	7,843	8,458	10,674	---	35,242	40,697	43,500	-2,803
Yuma Irrigation District	31,463	36,119	39,569	---	57,266	66,579	73,000	-6,421
Yuma Mesa Irrigation and Drainage District	85,792	90,059	99,391	---	178,306	198,158	213,652	-15,494
Unit "B" Irrigation and Drainage District	13,405	13,988	14,900	---	24,158	26,932	29,400	-2,468
Fort Yuma Indian Reservation	1,745	1,939	1,939	---	2,684	2,983	2,983	0
Yuma County Water Users' Association	220,609	255,343	275,560	---	305,086	357,351	367,400	-10,049
Cocopah Indian Reservation	392	691	1,725	---	623	1,080	2,650	-1,570
Reclamation - Yuma Area Office	175	195	195	---	175	195	195	0
Total Arizona	1,782,776	2,022,688	2,083,055		2,421,251	2,784,552	2,941,870	
Central Arizona Project (CAP)	825,885	979,546				979,546		
All Others	956,891	1,043,142	1,103,145			1,805,006	1,961,960	
Yuma Mesa Division, Gila Project	125,098	134,636	149,634	-14,998		305,434		
Total 242 Well Field Pumping ²	38,571	43,130	56,129					

Footnotes: See next page.

ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Arizona Basic Apportionment	2,800,000
Reduction for Tier 1 Shortage ³	(320,000)
Arizona DCP Contribution ^{4,5}	(192,000)
Creation of Extraordinary Conservation ICS - GRIC (Estimated) ^{5,6}	(78,565)
System Conservation Water - Pilot System Conservation Program ⁷	(500)
System Conservation Water - CRIT ⁸	(50,000)
System Conservation Water - CAP ⁹	(94,509)
System Conservation Water - CRIT ^{10,11}	(4,685)
System Conservation Water - FMYN ^{10,12}	(13,933)
System Conservation Water - GRIC ^{10,13}	(50,937)
System Conservation Water - MVIDD ^{10,14}	(9,592)
System Conservation Water - Reclamation (Estimated) ^{10,15}	(12,001)
System Conservation Water - YMIDD ^{10,16}	(8,544)
Delivery of ICS (CAWCD)	up to 50,000
Total State Adjusted Apportionment	2,014,734
Excess to Total State Adjusted Apportionment	7,954

Estimated Allowable Use for CAP

972,628

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 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.

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 2022, resulting in a 320,000 AF reduction to the state of Arizona's Colorado River basic apportionment.

⁴ In accordance with Section III.B.1.a of *Lower Basin Drought Contingency Operations* (LBOs), the state of Arizona is required to make a DCP Contribution of 192,000 AF in 2022. In accordance with the *Agreement Regarding Lower Basin Drought Contingency Plan Obligations*, it is currently anticipated that the required DCP Contribution will be made by CAWCD 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 2022. The actual amount of EC ICS created by CAWCD and credited toward the DCP Contribution will be based on final accounting and verification.

⁵ When combined with the approved EC ICS creation amount for the Gila River Indian Community (GRIC), the total amount of EC ICS approved for creation in the state of Arizona in 2022 is 178,565 AF, which exceeds the state's annual creation limit set forth in Section XI.G.3.B.4 of the 2007 Interim Guidelines. In accordance with Section XI.G.3.B.4 of the 2007 Interim Guidelines and Section IV.B of LBOs, the total amount of EC ICS that may be created by the states of Arizona, California, and Nevada in 2022 will be limited to 625,000 AF. Additionally, the total amount of EC ICS, Binational ICS and DCP ICS accumulated in Arizona's ICS Accounts will be limited in accordance with Section IV.C. of LBOs.

⁶ CAP water being conserved by GRIC in 2022 to create EC ICS. The actual amount of EC ICS created by GRIC will be based on final accounting and verification.

⁷ 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.

⁸ System Conservation Water to be created by CRIT pursuant to the *Agreement Among the United States of America, Through the Department of the Interior, Bureau of Reclamation, the State of Arizona, Through the Arizona Department of Water Resources, the Central Arizona Water Conservation District, and the Colorado River Indian Tribes to Fund the Creation of Colorado River System Water Through Voluntary Water Conservation and Reductions in use During Calendar Years 2020-2022*. This System Conservation Water will remain in Lake Mead to benefit system storage.

⁹ CAP water being conserved by certain CAP subcontractors pursuant to executed Compensated Conservation Agreements. Water conserved under these agreements will be left in Lake Mead for the benefit of system storage. In accordance with the Project Funding Agreement No. 1, the Bureau of Reclamation will contribute 15 percent of the funding and intends to apply 15 percent of the water conserved towards addressing the Secretary of the Interior's commitment pursuant to Section 3.b of the *Lower Basin Drought Contingency Plan Agreement* (LB DCP Agreement).

¹⁰ In accordance with the applicable system conservation agreements and Section 3.b of the LB DCP Agreement, 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.

¹¹ System Conservation Water created by CRIT pursuant to SCIA No. 22-XX-30-W0729, which will remain in Lake Mead to benefit system storage.

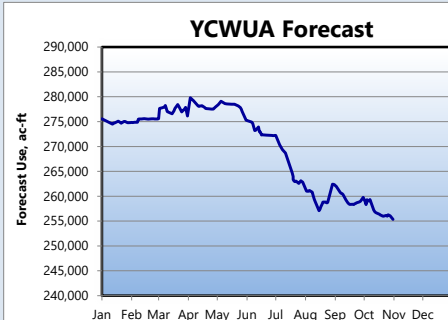
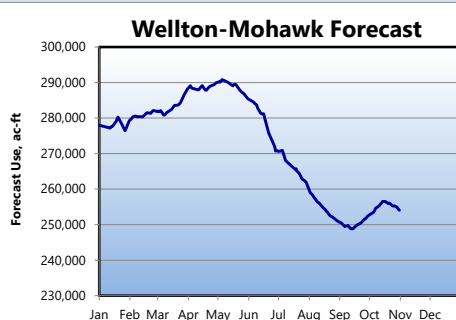
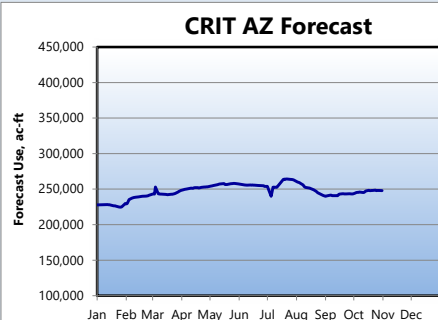
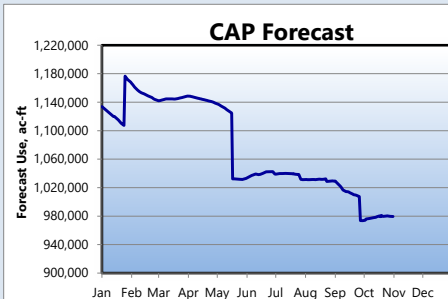
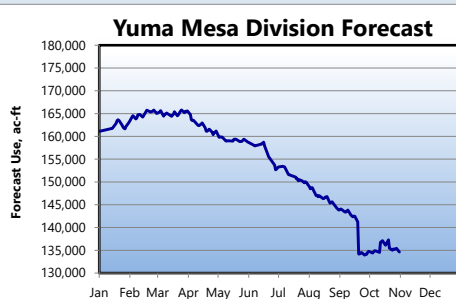
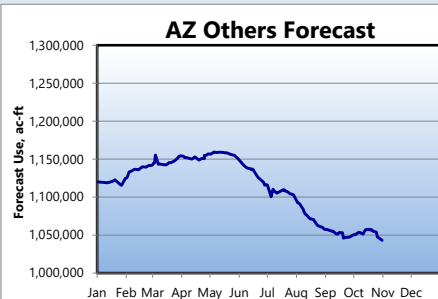
¹² CAP water being conserved by FMYN pursuant to SCIA No. 20-XX-30-W0688, which will remain in Lake Mead to benefit system storage.

¹³ CAP water being conserved by GRIC pursuant to SCIA No. 22-XX-30-W0724, which will remain in Lake Mead to benefit system storage.

¹⁴ System Conservation Water being created by MVIDD pursuant to SCIA No. 22-XX-30-W0725, which will remain in Lake Mead to benefit system storage.

¹⁵ System Conservation Water being 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.

¹⁶ System Conservation Water created by YMIDD Agreement No. 22-XX-30-W0728, which will remain in Lake Mead to benefit system storage.



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



**LOWER COLORADO BASIN REGION
CY 2022**

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](#)[Historic 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/under-run 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/under-run of entitlement. Dash in this column indicates water user has a consumptive use entitlement.

WATER USER	Use	Forecast	Estimated	Excess to	Excess to	Excess to	Excess to
	To Date	Use	Use	Use	Diversion	Forecast	Approved
	CY 2022	CY 2022	CY 2022	CY 2022	To Date	Diversion	Diversion
					CY 2022	CY 2022	CY 2022
Fort Mojave Indian Reservation, CA	6,084	6,911	8,996	---	11,309	12,845	16,720
PPR No. 30 (Stephenson)	21	23	23	---	38	42	42
PPR No. 38 (Andrade)	21	23	23	---	38	42	42
City of Needles (includes LCWSP use)	1,116	1,325	1,605	-280	1,832	2,124	2,261
Chemehuevi Indian Reservation	165	183	183	---	10,204	11,340	11,340
The Metropolitan Water District of Southern California	921,760	1,133,716	1,133,375	---	923,906	1,136,325	---
Colorado River Indian Reservation, CA	4512	5,014	5,014	---	7,475	8,307	8,307
Palo Verde Irrigation District	325,994	328,672	420,696	---	709,575	777,672	857,000
Lake Enterprises	1	1	1	---	1	1	1
Yuma Project Reseravtion Division	35,075	40,697	49,577	---	70,369	83,662	98,635
Yuma Project Reservation Division - Bard Unit	---	---	---	---	32,563	39,415	51,500
Yuma Project Reservation Division - Indian Unit	---	---	---	---	37,806	44,248	47,135
Fort Yuma Indian Reservation - Ranch 5 (Surface Delivery)	986	1,151	1,194	---	1,783	2,081	2,160
Fort Yuma Indian Reservation - Other Ranches (Pumpers)	1,025	1,139	1,139	---	1,853	2,059	2,059
Yuma Island Pumpers	1,466	1,629	1,629	---	2,652	2,947	2,947
Imperial Irrigation District ¹	2,283,172	2,550,403	2,620,300	-69,897	2,328,542	2,618,901	2,719,536
Coachella Valley Water District	280,432	329,464	384,000	-54,536	297,218	350,571	399,950
Other LCWSP Contractors	507	563	563	---	816	907	907
City of Winterhaven	55	61	61	---	79	88	88
Total California	3,862,392	4,400,975	4,628,379		4,367,690	5,009,914	5,257,934

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

California Basic Apportionment	4,400,000
System Conservation Water - Pilot System Conservation Program ²	(145)
System Conservation Water - PVID Following Program ³	(50,800)
Creation of Extraordinary Conservation ICS by IID - Stored in Lake Mead (Estimated) ⁴	0
Creation of Extraordinary Conservation ICS by MWD (Estimated) ⁵	0
Total State Adjusted Apportionment	4,349,055
Excess to Total State Adjusted Apportionment	51,920

Estimated Allowable Use for MWD

1,081,796

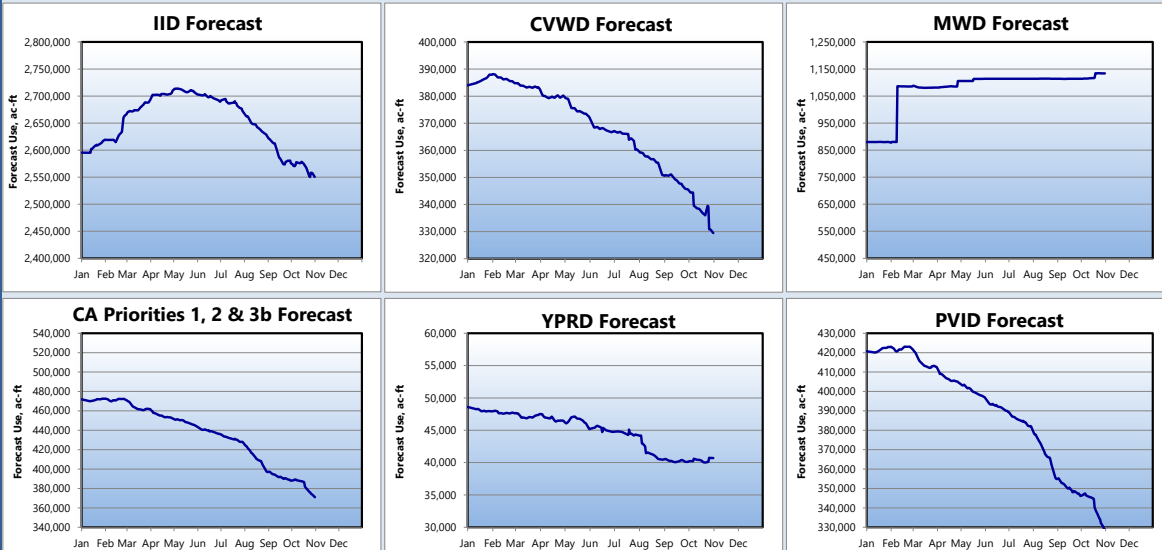
¹ As shown here, IID's Approved Diversion and Estimated Use values reflect the maximum amount of Colorado River water available to IID in 2022. Note: This forecast may be updated to reflect up to 25,000 AF of water conserved and stored by IID pursuant to the IID-MWD Settlement and Release Agreement dated September 16, 2021.

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

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*.

⁴ IID has an approved ICS Plan for the creation of up to 62,000 AF of Extraordinary Conservation (EC) ICS in 2022; however, pursuant to Section 3 of the *California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus*, as amended, IID may accumulate a maximum of 50,000 AF of EC ICS in its Lake Mead ICS Account, and has reached this limit. The actual amount of EC ICS created by IID in 2022, if any, will be based on final accounting and verification.

⁵ MWD has an approved ICS Plan for the creation of up to 450,000 AF of EC ICS in 2022. The actual amount of EC ICS created by MWD in 2022 will be based on final accounting and verification, and will be limited to the amount that, when combined with the amount of EC ICS created by IID, does not exceed the maximum EC ICS creation capacity available to the state of California. In accordance with Section XI.G.3.B.4 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 2022 will be limited to 625,000 AF. Additionally, the total amount of EC ICS, Binational ICS and DCP ICS accumulated in California'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 2022

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

WATER USER	Use	Forecast	Estimated	Excess to	Diversion	Forecast	Excess to
	To Date CY 2022	Use CY 2022	Use CY 2022	Estimated Use CY 2022	To Date CY 2022	Diversion CY 2022	Approved Diversion CY 2022
Robert B. Griffith Water Project (SNWS)	390,063	445,864		---	390,063	445,864	---
Lake Mead NRA, NV - Diversions from Lake Mead	414	633	1,500	---	414	633	1,500
Lake Mead NRA, NV - Diversions from Lake Mohave	165	255	500	---	165	255	500
Basic Management, Inc.	1,966	1,966	8,208	---	1,966	1,966	8,208
City of Henderson (BMI Delivery)	5,675	5,675	15,878	---	5,675	5,675	15,878
Nevada Department of Wildlife	1	3	12	-9	126	269	1,000
Pacific Coast Building Products, Inc.	763	892	928	---	763	892	928
Boulder Canyon Project	157	175	175	---	270	300	300
Big Bend Water District	1,563	2,162	4,765	---	3,291	4,649	10,000
Fort Mojave Indian Tribe	2,395	2,672	4,623	---	3,574	3,987	6,900
Las Vegas Wash Return Flows	-196,514	-236,029	-228,466	---			
Total Nevada	206,648	224,268	271,446	-9	406,307	464,490	508,537
Southern Nevada Water System (SNWS)	193,549	209,835				445,864	
All Others	13,099	14,433				18,626	
Nevada Uses Above Hoover	202,690	219,434				455,854	
Nevada Uses Below Hoover	3,958	4,834				8,636	

Tributary Conservation (TC) Intentionally Created Surplus (ICS)

Southern Nevada Water Authority (SNWA) Creation of TC ICS (Approved) ¹ 43,000

NEVADA ADJUSTED APPORTIONMENT CALCULATION

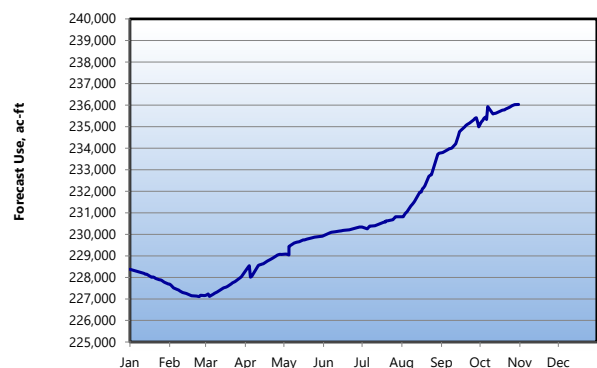
Nevada Basic Apportionment	300,000
Reduction for Tier 1 Shortage ²	(13,000)
Creation of Extraordinary Conservation ICS - SNWA (Estimated) ³	(62,732)
Total State Adjusted Apportionment	224,268
Excess to Total State Adjusted Apportionment	0

¹ SNWA has an approved ICS Plan for the creation of up to 43,000 AF of TC ICS in 2022. The actual amount of TC ICS created by SNWA in 2022 will be based on final accounting and verification.² 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 2022, resulting in a 13,000 AF reduction to the state of Nevada's Colorado River basic apportionment.³ SNWA has an approved ICS Plan for the creation of up to 100,000 AF of Extraordinary Conservation (EC) ICS in 2022. The actual amount of EC ICS created by SNWA in 2022 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 2022 will be limited to 625,000 AF. Additionally, the total amount of EC ICS, Binational ICS and DCP ICS accumulated in Nevada's ICS Accounts will be limited in accordance with Section IV.C. of LBOs.

Robert B. Griffith Forecast



LV Wash Return Forecast



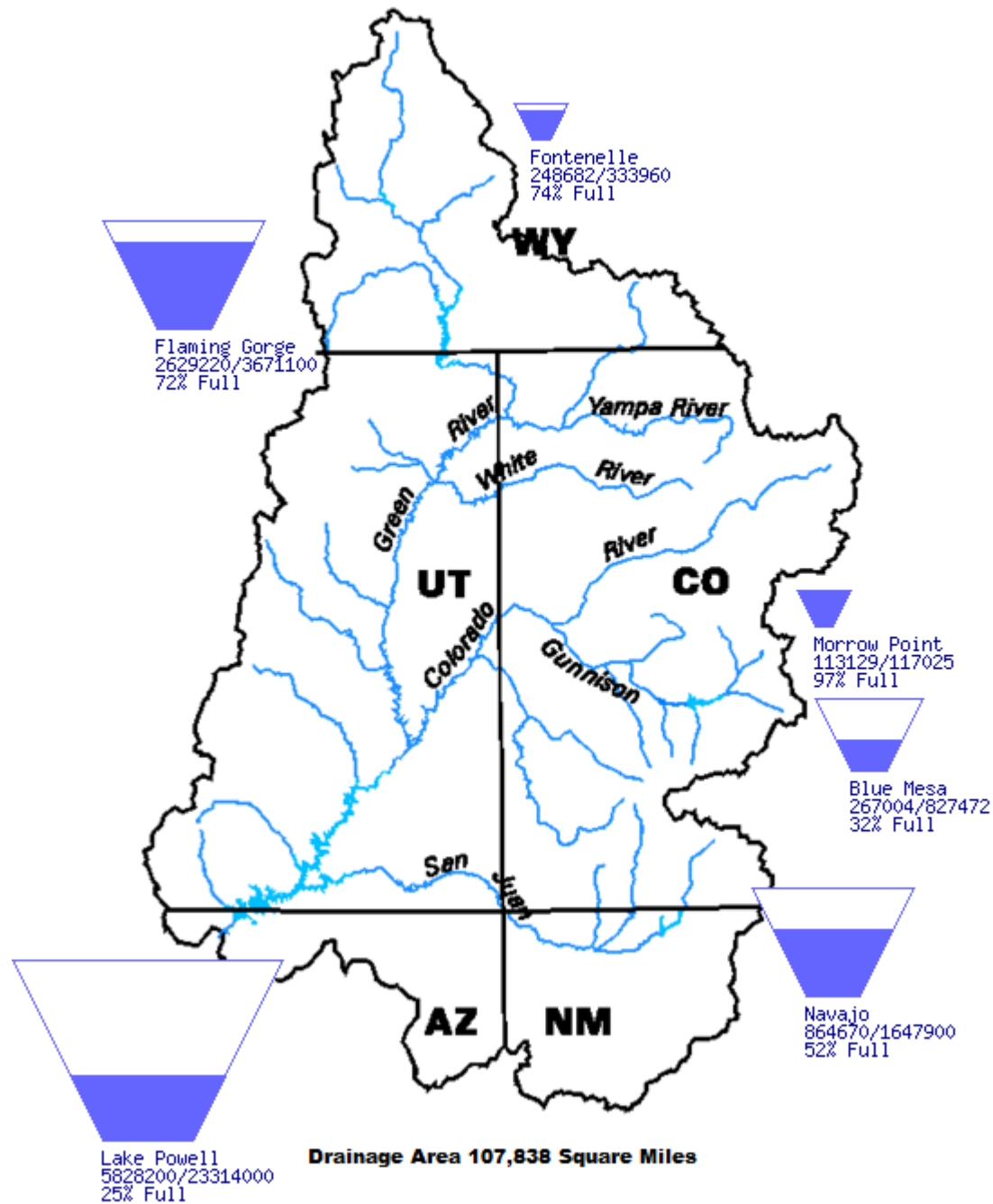
NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

Upper Colorado Region Water Resources Group

River Basin Tea-Cup Diagrams

Data Current as of:
11/01/2022

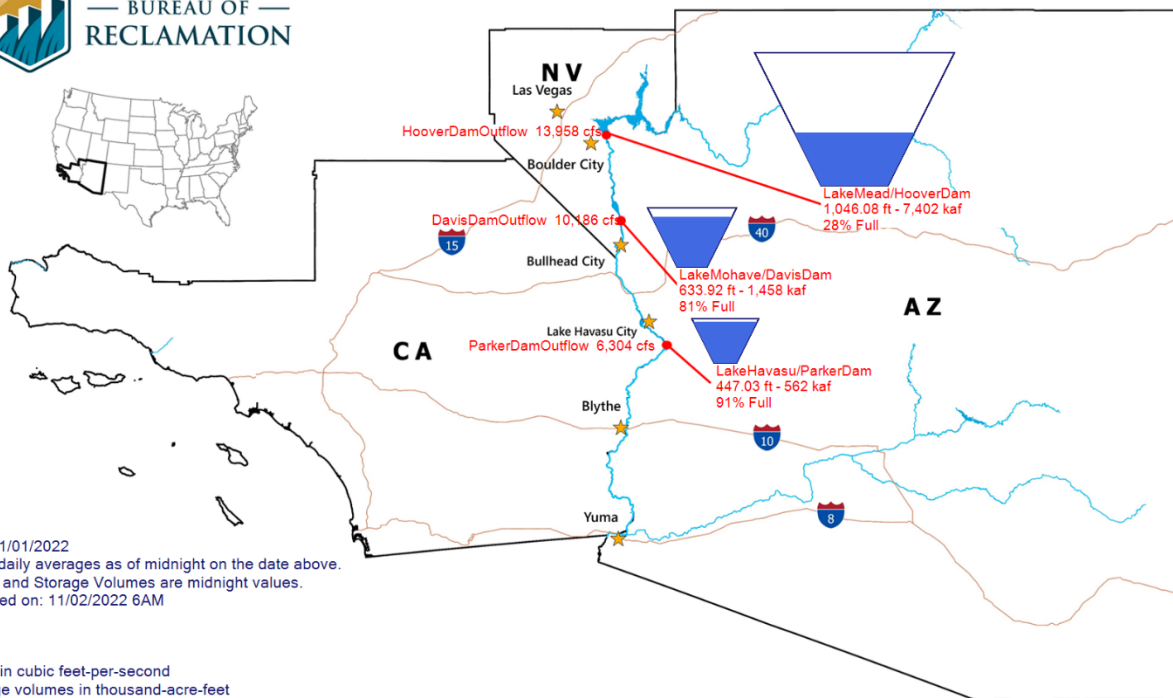
Upper Colorado River Drainage Basin



Lower Colorado River Teacup Diagram



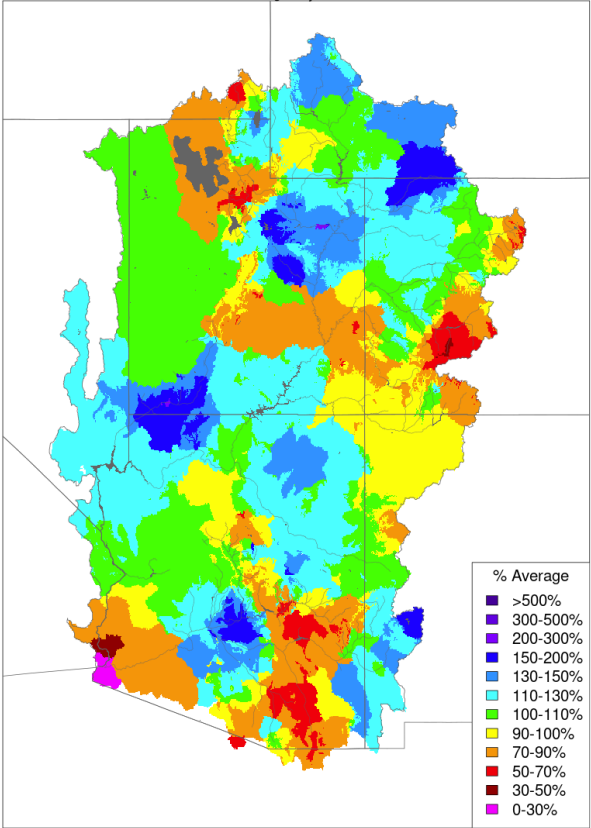
BUREAU OF
RECLAMATION



NOAA National Weather Service Monthly Precipitation Map September and October 2022

Monthly Precipitation - September 2022

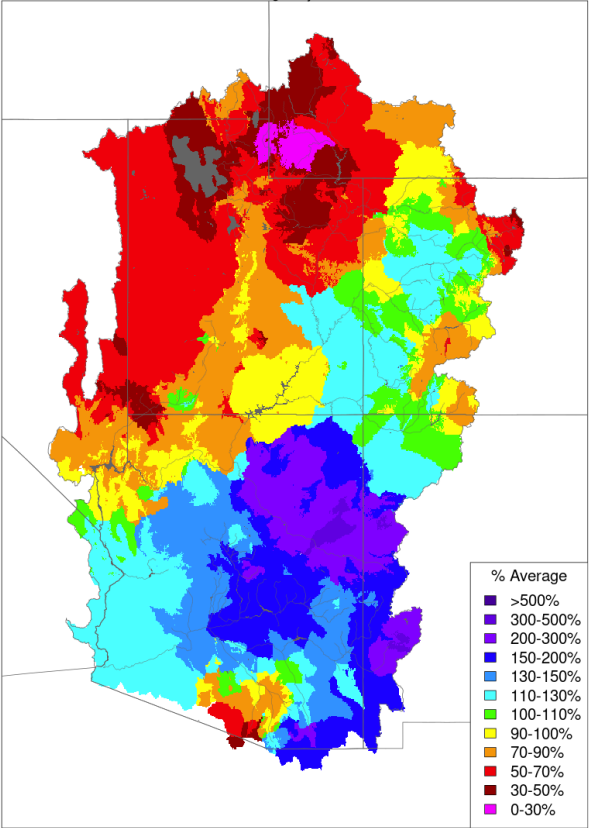
Averaged by Basin



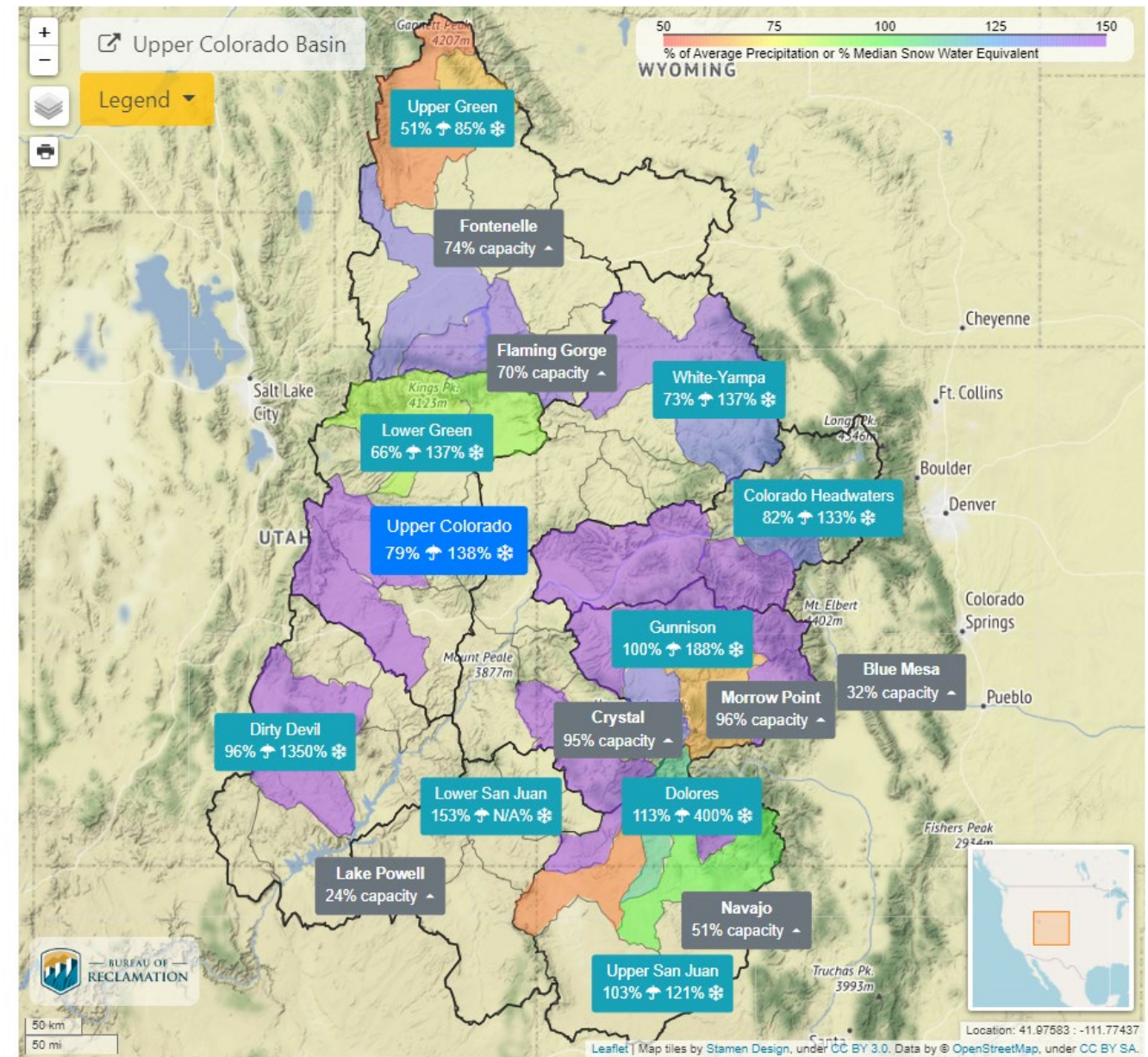
Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Monthly Precipitation - October 2022

Averaged by Basin

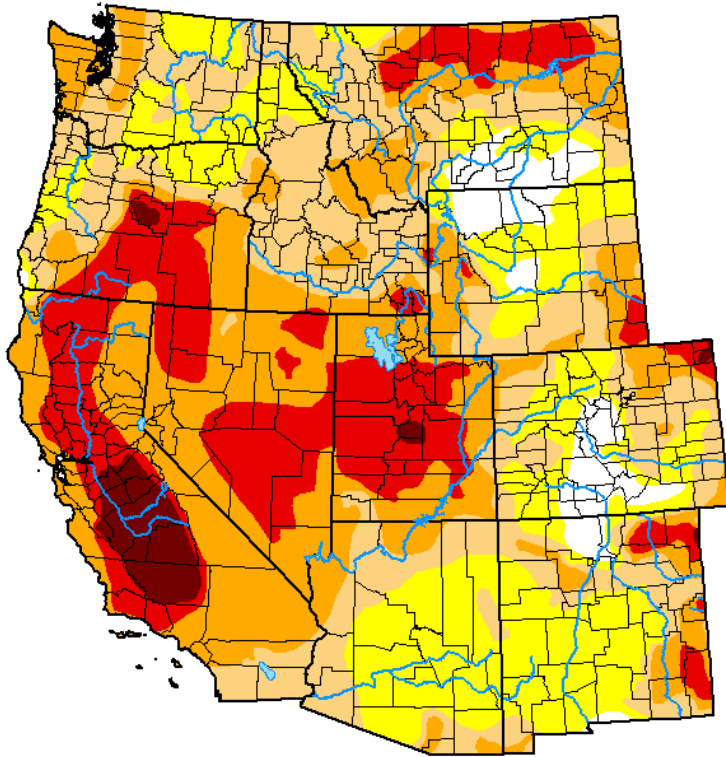


Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov



U.S. Drought Monitor West

October 25, 2022
(Released Thursday, Oct. 27, 2022)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	4.56	95.44	73.49	47.80	19.55	2.53
Last Week 10-18-2022	5.02	94.98	73.03	47.38	19.38	2.62
3 Months Ago 07-26-2022	16.72	83.28	72.69	55.74	29.12	6.51
Start of Calendar Year 01-04-2022	3.68	96.32	89.29	64.90	23.85	3.94
Start of Water Year 09-27-2022	3.89	96.11	73.90	47.71	19.37	2.63
One Year Ago 10-26-2021	2.16	97.84	90.73	74.61	47.11	15.31

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:

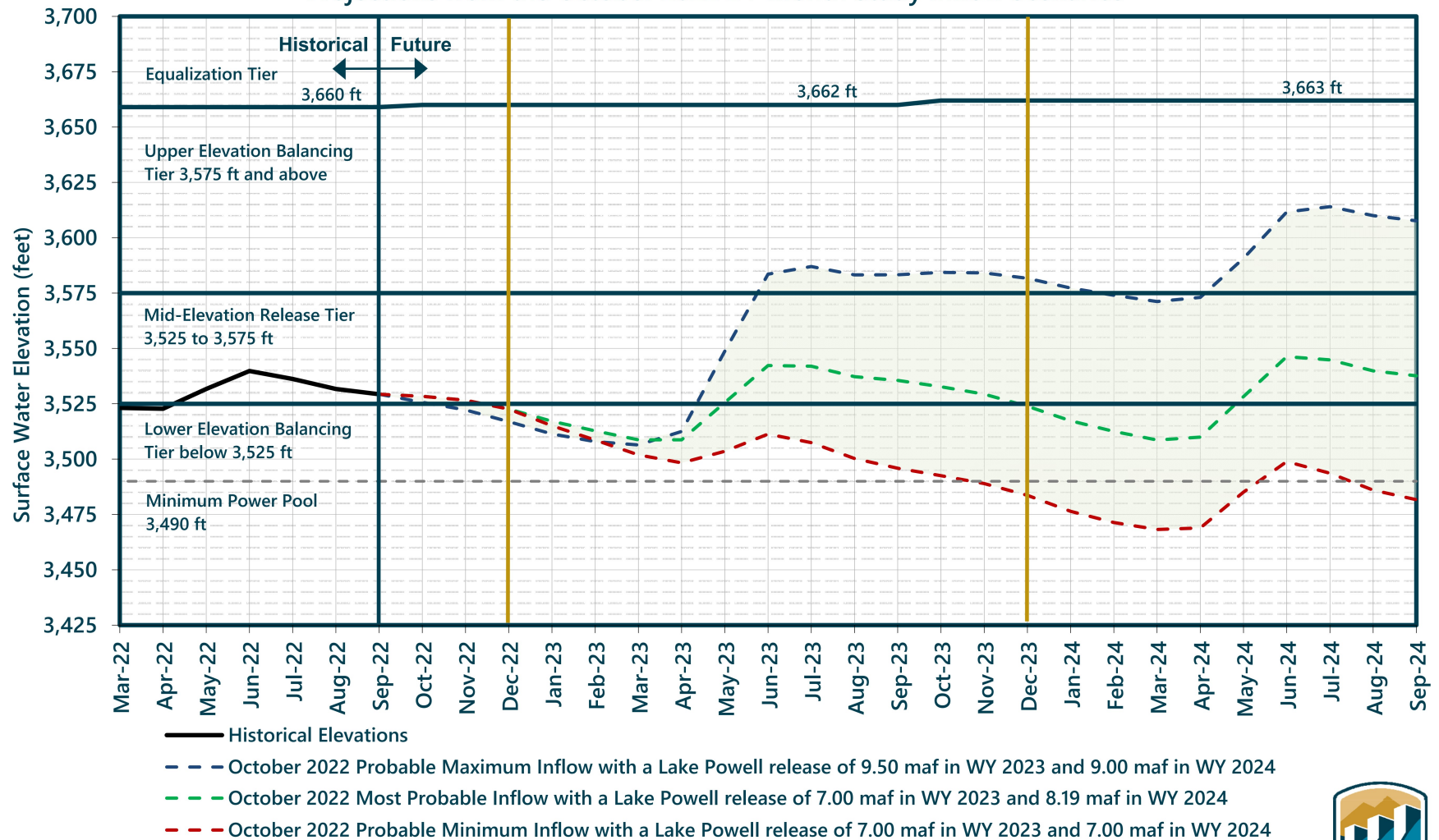
Adam Hartman
NOAA/NWS/NCEP/CPC



droughtmonitor.unl.edu

Lake Powell End of Month Elevations¹

Projections from the October 2022 24-Month Study Inflow Scenarios

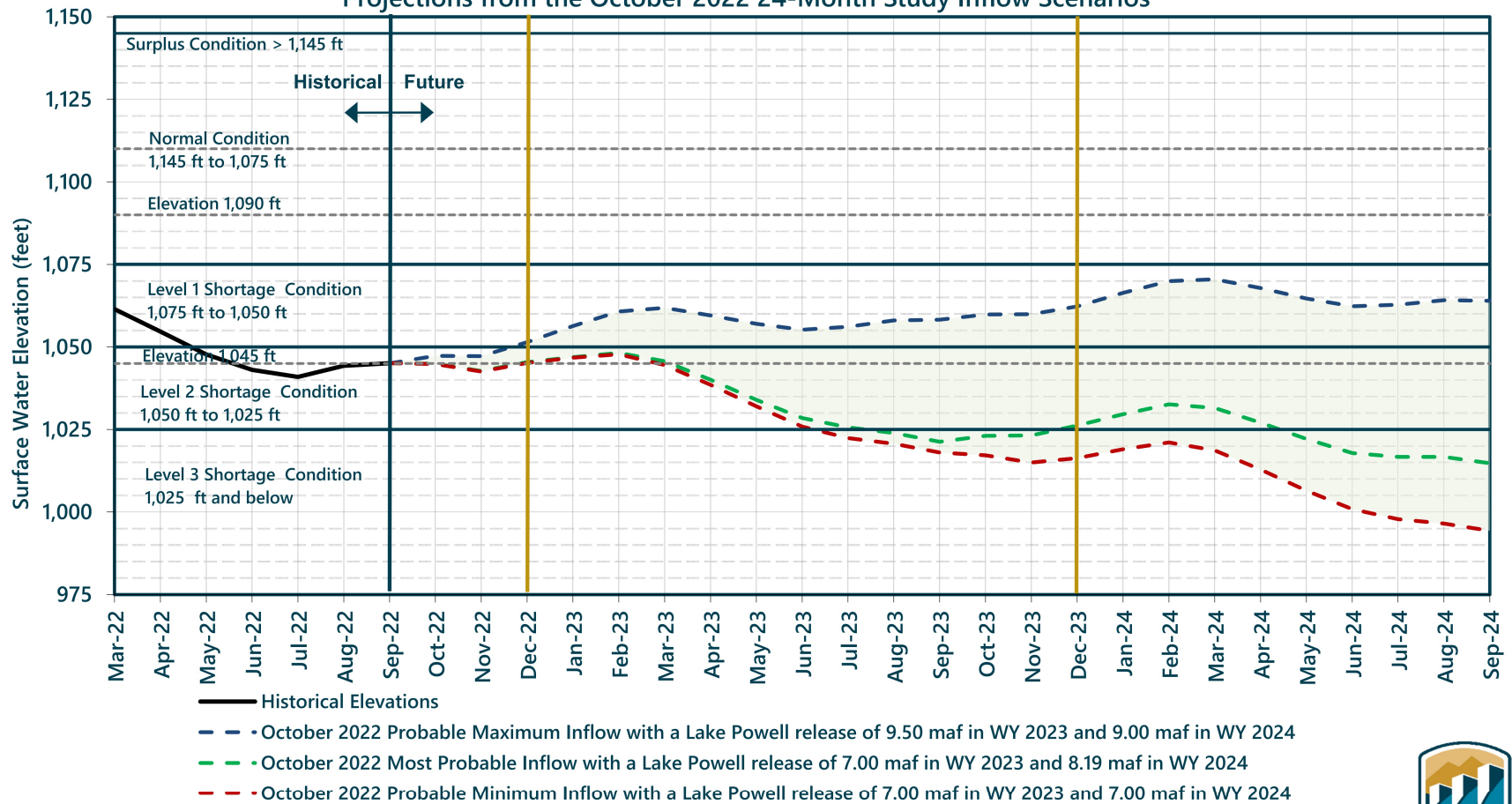


¹ Projected Lake Powell end of month physical elevations from the latest 24-Month Study inflow scenarios.
 The Drought Response Operations Agreement (DROA) is available online at: <https://www.usbr.gov/dcp/finaldocs.html>.



Lake Mead End of Month Elevations¹

Projections from the October 2022 24-Month Study Inflow Scenarios



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>.

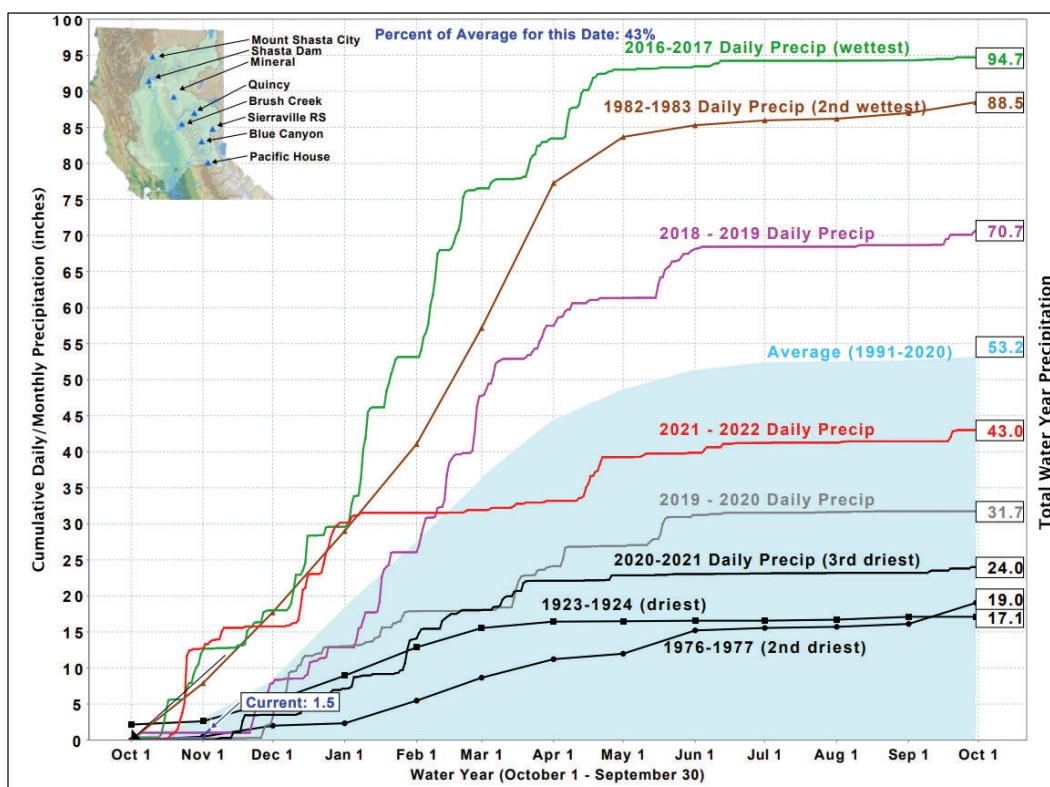


Precipitation at Six Major Stations in Southern California

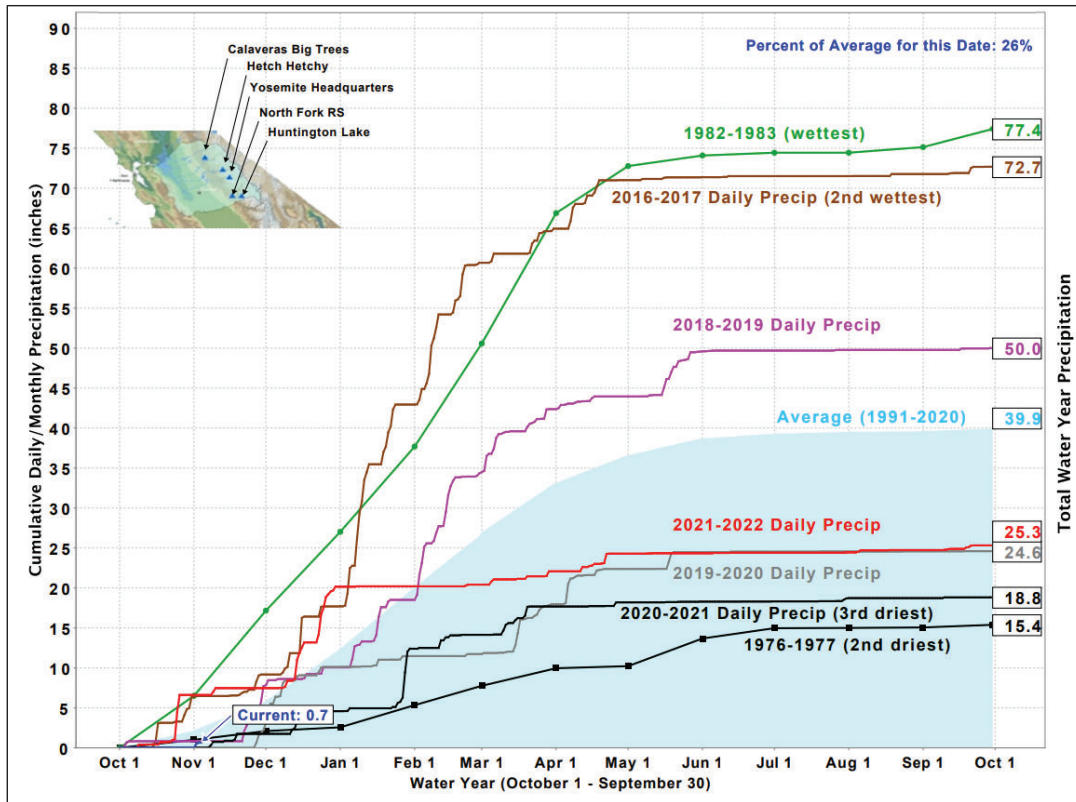
From October 1, 2022, to October 31, 2022

Station	Precipitation in inches		Average to Date	Percent of Average
	Oct	Oct 1 to Oct 31		
San Luis Obispo	0.00	0.00	0.91	0%
Santa Barbara	0.03	0.03	0.69	4%
Los Angeles	0.02	0.00	0.56	0%
San Diego	0.09	0.09	0.51	18%
Blythe	0.16	0.16	0.27	59%
Imperial	0.00	0.00	0.25	0%

Northern Sierra Precipitation: 8 Station Index

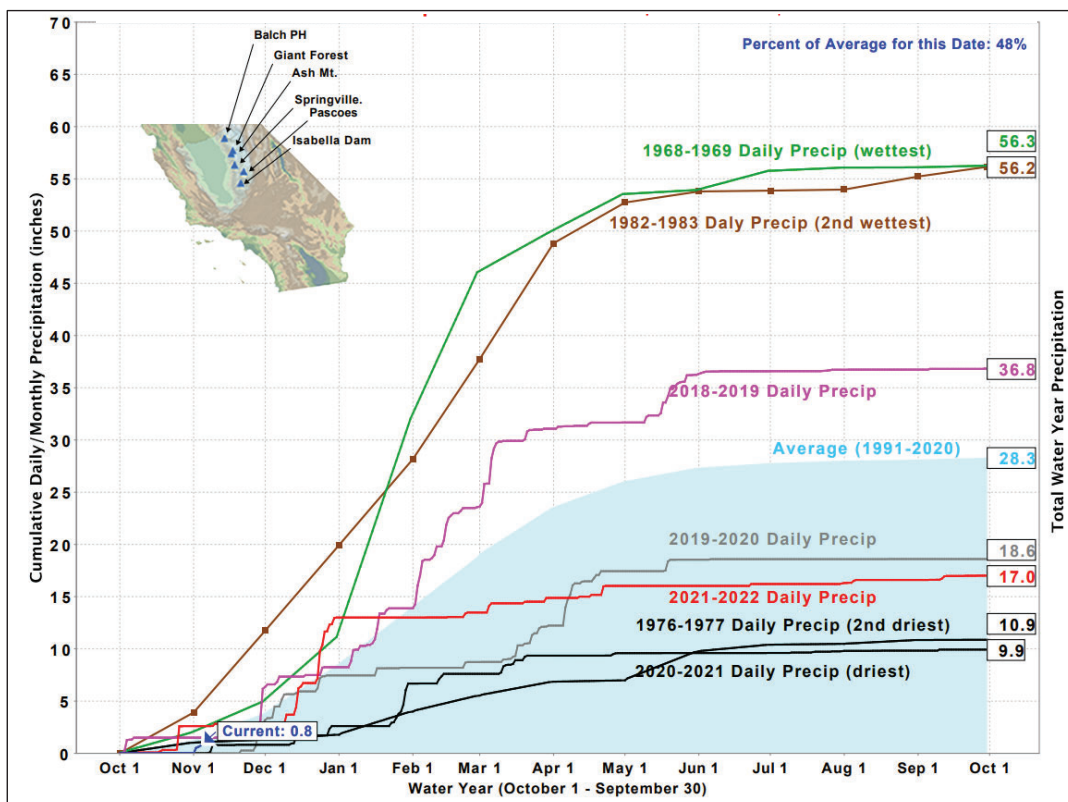


San Joaquin Precipitation: 5 Station Index



California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_FSI.pdf

Tulare Basin Precipitation: 6 Station Index



California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_TSI.pdf

Precipitation Statistics (1981-present)

Statewide as of 11/03/2022

Water Year to Date: **0.49"**

% of Average: **33%**

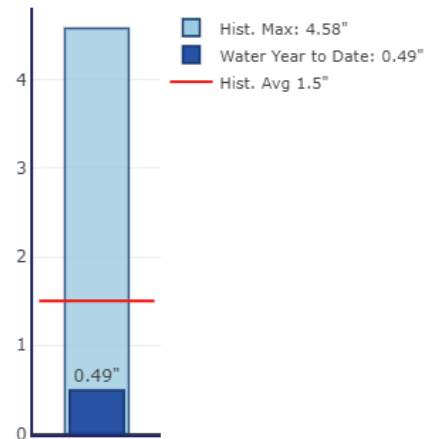
Precipitation % of average for
full water year through
September 30th: **2%**

Historical Record to Date:

Max: **4.58"**

Mean: **1.5"**

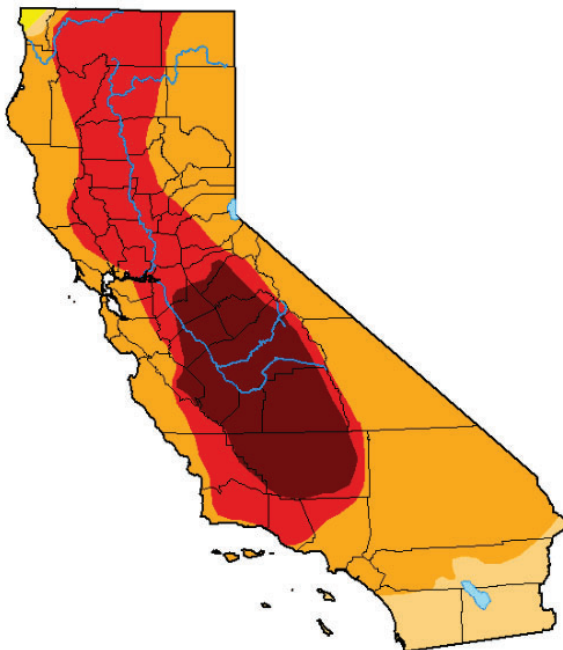
Min: **0.05"**



Precipitation for water year to date is
33% of historical average

California WATER WATCH
<https://cww.water.ca.gov/>

U.S. Drought Monitor California



November 1, 2022

(Released Thursday, Nov. 3, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.77	91.83	43.06	16.57
Last Week 10-25-2022	0.00	100.00	99.77	91.83	43.06	16.57
3 Months Ago 08-02-2022	0.00	100.00	99.78	97.47	59.81	12.12
Start of Calendar Year 01-04-2022	0.00	100.00	99.30	67.62	16.60	0.84
Start of Water Year 09-27-2022	0.00	100.00	99.76	94.01	40.91	16.57
One Year Ago 11-02-2021	0.00	100.00	100.00	93.81	83.33	38.74

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

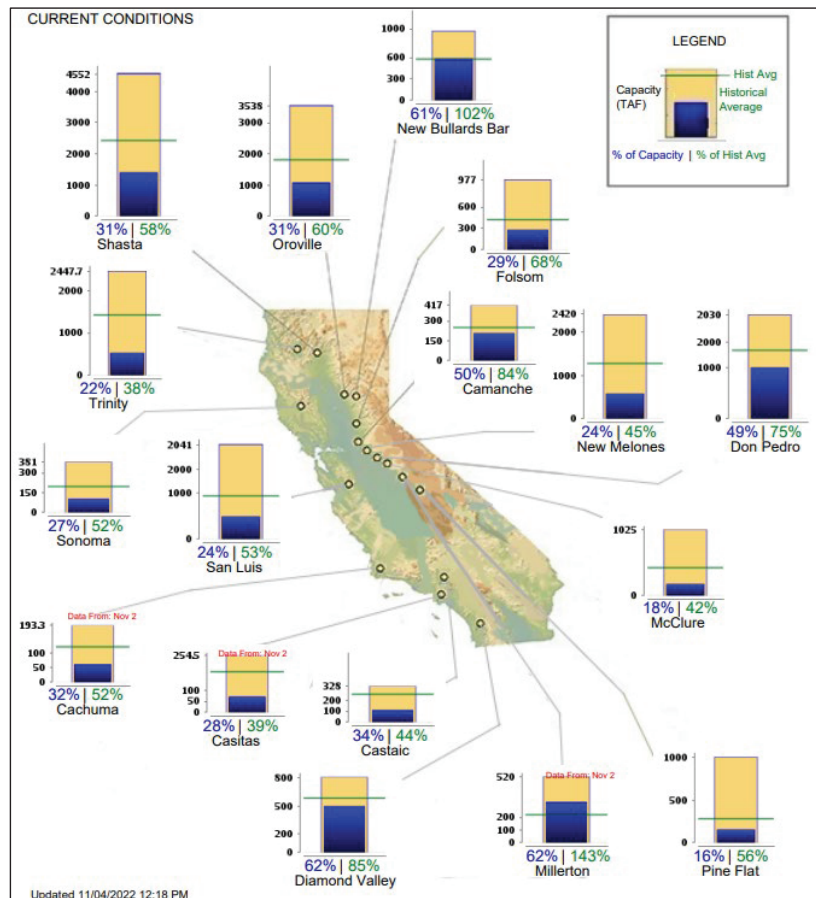
<https://droughtmonitor.unl.edu/Maps/MapArchive.aspx>

Comparison of SWP Water Storage

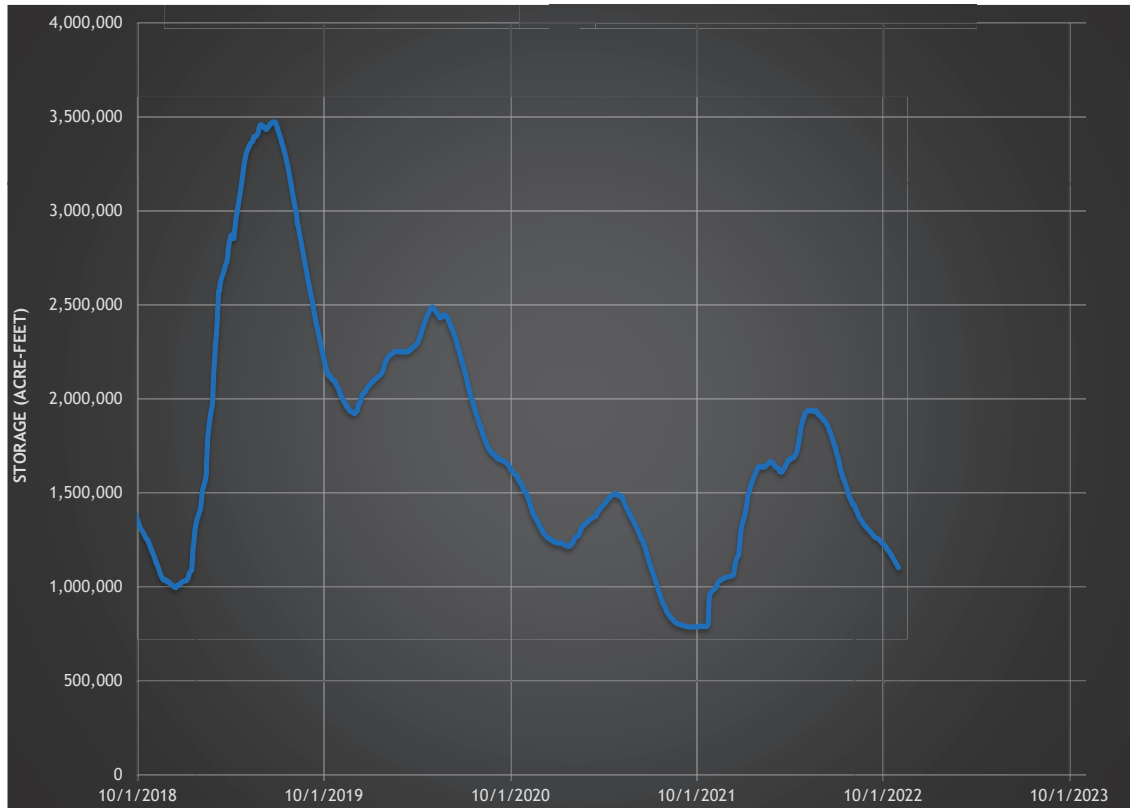
Reservoir	Capacity	2021 Storage (acre-feet)		2022 Storage (acre-feet)	
		As of Nov-1	% of Cap.	As of Nov-1	% of Cap.
Frenchman	55,475	28,622	52%	29,317	53%
Lake Davis	84,371	42,534	50%	38,884	46%
Antelope	22,564	14,111	63%	17,452	77%
Oroville	3,553,405	981,745	28%	1,098,649	31%
TOTAL North	3,715,815	1,067,012	29%	1,184,302	32%
Del Valle	39,914	39,337	99%	35,941	90%
San Luis	2,027,835	302,242	15%	499,335	25%
Pyramid	169,901	163,740	96%	166,783	98%
Castaic	319,247	94,178	30%	109,906	34%
Silverwood	74,970	68,735	92%	64,867	87%
Perris	132,614	108,793	82%	93,496	71%
TOTAL South	2,764,481	777,025	28%	970,328	35%
TOTAL SWP	6,480,296	1,844,037	28%	2,154,630	33%

As of March 18, 2022, the Table A allocations for SWP contractors decreased from 15% to 5%

CA Major Water Supply Reservoirs current conditions (as of November 4, 2022)

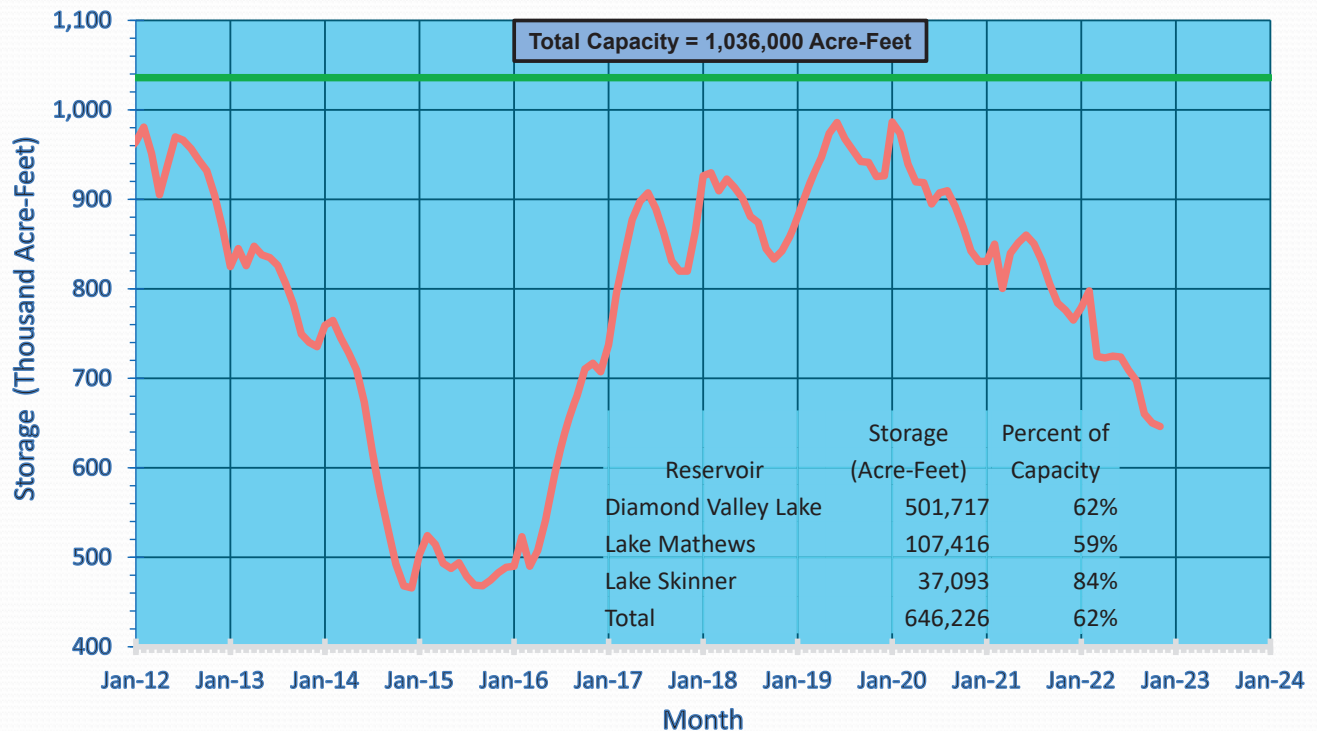


Oroville Reservoir Storage October 1, 2018 - October 31, 2022

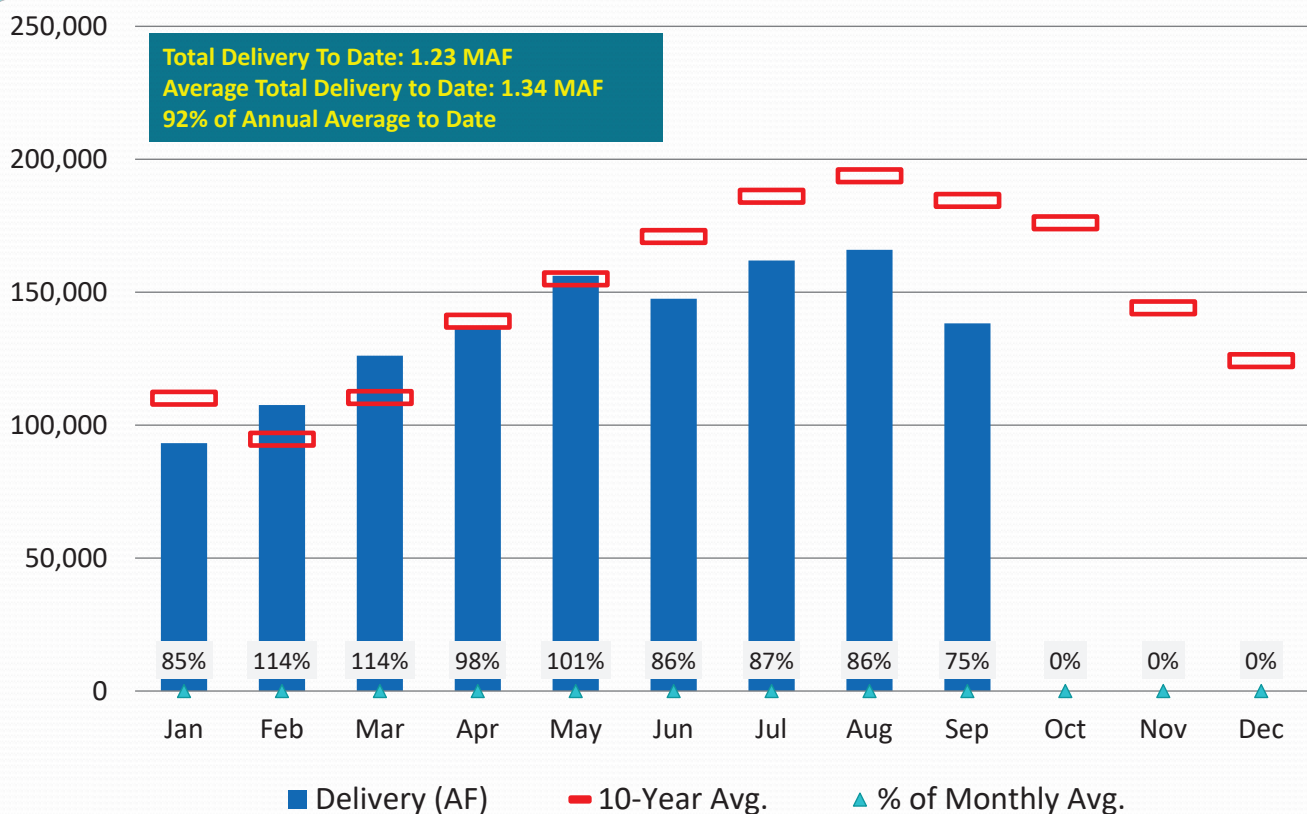


MWD's Combined Reservoir Storage as of November 1, 2022

Lake Skinner, Lake Mathews, and Diamond Valley Lake



2022 Water Deliveries to Agencies (AF)





Press Releases

[Share](#)

Biden-Harris Administration Announces New Steps for Drought Mitigation Funding from Inflation Reduction Act

New program will increase water conservation and water efficiency within the Colorado River Basin

10/12/2022

Date: Wednesday, October 12, 2022

Contact: Interior_Press@ios.doi.gov

WASHINGTON — The Department of the Interior today announced new drought mitigation funding opportunities to improve and protect the long-term sustainability of the Colorado River System.

A newly created Lower Colorado River Basin System Conservation and Efficiency Program, funded with an initial allocation through the Inflation Reduction Act and managed through the Bureau of Reclamation, will help increase water conservation, improve water efficiency, and prevent the System's reservoirs from falling to critically low elevations that would threaten water deliveries and power production.

“The prolonged drought afflicting the West is one of the most significant challenges facing our country. I have seen firsthand how climate change is exacerbating the drought crisis and putting pressure on the communities who live across Western landscapes,” said **Secretary Deb Haaland**. “Thanks to historic funding from the Inflation Reduction Act, the Interior Department is committed to using every resource available to conserve water and ensure that irrigators, Tribes and adjoining communities receive adequate assistance and support to build resilient communities and protect our water supplies.”

“This significant investment from the Inflation Reduction Act enables the Bureau of Reclamation to improve water management and conservation efforts in the Colorado River Basin today – and for the future,” said **Reclamation Commissioner Camille Calimlim Touton**. “The Lower Colorado River Basin System Conservation and Efficiency Program provides both new opportunities for system conservation and more durable long-term solutions for areas experiencing drought.”

The availability of this new funding supplements the actions announced in August 2022 as part of Reclamation’s release of the Colorado River Basin August 2022 24-Month Study, which sets the annual operations for Lake Powell and Lake Mead in 2023. It also builds on new and urgent actions recently announced by Department leaders to improve and protect the long-term sustainability of the Colorado River System.

The Inflation Reduction Act includes \$4 billion in funding specifically for water management and conservation efforts in the Colorado River Basin and other areas experiencing similar levels of drought. Today’s announcement focuses on near-term actions to protect the Colorado River in the Lower Basin. The Department is also working to invest in long-term system efficiency improvements across the Basin, including at least \$500 million in the Upper Basin states of Colorado, Utah, Wyoming and New Mexico, that will result in additional water conservation for the entire system.

New Lower Colorado River Basin System Conservation and Efficiency Program

The newly created Lower Colorado River Basin System Conservation and Efficiency Program will select projects for funding by Colorado River water

delivery contract or entitlement holders that mitigate drought, protect important natural resources, and ensure a reliable source of water and power for those who live in communities across the West.

The program funding opportunity has three components. Two of the three components are open for proposal submissions from Oct. 12 to Nov. 21, 2022 and require confirmation of water conservation and system benefits.

For the first component, eligible applicants may submit proposals for system conservation resulting in wet water remaining in Lake Mead at a set price of:

- One-year agreement: \$330 per acre-foot
- Two-year agreement: \$365 per acre-foot
- Three-year agreement: \$400 per acre-foot

A second component of the program will accept proposals for additional water conservation and efficiency projects that could involve a variety of pricing options.

The third component allows for proposals to be submitted in early 2023 for long-term system efficiency improvements that will result in multi-year system conservation.

Information on the program and proposal submission details will be available later today on Reclamation's [Inflation Reduction Act webpage](#).

As the Department implements this historic funding opportunity, it is focused on the need for continued collaboration and partnerships across the Upper and Lower Basins, with Tribes, and with the country of Mexico. The agency's approach will continue to seek consensus support and will be based on a continued commitment to engage with diverse stakeholders to ensure all communities that rely on the Colorado River will provide contributions toward the solutions.

###
