

July 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, August 10, 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](mailto:crb@crb.ca.gov) and will be accepted up until 10:00 a.m. on the day of the meeting. Please note, written submissions will be read aloud at the public comment period to the extent they fit within the five-minute time limit.

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

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

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



Christopher S. Harris  
Executive Director

**Regular Meeting**  
**COLORADO RIVER BOARD OF CALIFORNIA**  
**Wednesday, August 10, 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 May 11, 2022, Board meeting Minutes (**Action**)
  - b. Consideration and approval of June 15, 2022, Board meeting Minutes (**Action**)
  - c. Consideration and approval of resolution on application for Lower Colorado River Water Supply Project (**Action**)
- 4. Colorado River Basin and Local Water Supply and Operations Reports**
- 5. Colorado River Basin Programs Staff Reports**
- 6. Executive Session<sup>1</sup>**
- 7. Other Business**
- 8. Future Agenda Items/Announcements**

<b>Next Scheduled Board Meeting:</b>	September 14, 2022 10:00 a.m., Pacific Sheraton Ontario Airport Hotel, Orchid Room 429 North Vineyard Avenue Ontario, CA 91764
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<sup>1</sup> 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, May 11, 2022

A meeting of the Colorado River Board of California (Board) was held on Wednesday, May 11, 2022, at the Sheraton Ontario Airport Hotel, 429 North Vineyard Avenue, Ontario, California 91764.

Board Members and Alternates Present:

David De Jesus (MWD Alternate)  
Dana B. Fisher, Jr. (PVID)  
John B. Hamby (IID)  
Jeanine Jones (DWR Designee)  
Jim Madaffer (SDCWA)  
Peter Nelson, Chairman (CVWD)  
Glen D. Peterson (MWD)

David R. Pettijohn, Vice Chairman (LADWP)  
James Hanks (IID Alternate)  
Christopher Hayes (DFW Designee)  
Delon Kwan (LADWP Alternate)  
Jack Seiler (PVID Alternate)  
David Vigil (DFW Alternate)

Board Members and Alternates Absent:

Castulo Estrada (CVWD Alternate)  
Mark Watton (SDCWA Alternate)

David Vigil (DFW Alternate))

Others Present:

Jessica Arm  
Steve Abbott  
Robert Cheng  
Dennis Davis  
Chris Harris  
Bill Hasencamp  
Larry Lai  
Tom Levy  
Dwight Lomayesva  
Robert Page

Angela Rashid  
David Rheinheimer  
Kelly Rodgers  
Shanti Rosset  
Tom Ryan  
Alexi Schnell  
Tina Shields  
Gary Tavetian  
Petya Vasileva  
Jerry Zimmerman



## **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**

Executive Director Harris presented the draft Colorado River Board of California for Fiscal Year 2022-2023.

Mr. Harris presented the Fiscal Year 2021-2022 Accomplishment Report and the FY-2022-2023 Planned Activities Report.

## **COLORADO RIVER BASIN WATER REPORTS**

### **Colorado River Basin Report**

Mr. Harris reported that as of May 9th, the water level at Lake Powell was 3,523.06 feet with 5.81 million-acre feet (MAF) of storage, or 24% of capacity. The water level at Lake Mead was 1,052.94 feet with 7.90 MAF of storage, or 30% of capacity. The total system storage was 20.30 MAF, or 34% of capacity, which is 5.07 MAF less than system storage at this time last year.

Mr. Harris reported that as of May 4th, for Water Year-2022 (WY-2022), the observed April inflow to Lake Powell was 0.59 MAF, or 66% of normal. The May inflow forecast to Lake Powell is 1.45 MAF, or 70% of normal. The forecasted unregulated inflow into Lake Powell for WY-2022 is 5.98 MAF, or 66% of normal and the WY-2022 forecasted April to July inflow to Lake Powell is 3.8 MAF, or 64% of normal. Mr. Harris reported that overall precipitation conditions in the Upper Colorado River Basin were 94% of normal and the current Basin snowpack is 68% of normal. Mr. Harris noted that continued drought conditions in the Basin have made it difficult for percolation of the spring run-off into the soil column.

Mr. Harris reported on the Basin's monthly precipitation and snowpack. He stated that the Green River Basin, which provided a significant amount of the Upper Basin's precipitation during previous dry winters, has been experiencing dry conditions. He also noted that the San

Juan River Basin has experienced incredibly dry conditions.

Mr. Harris reported that through the end of April, the Brock and Senator Wash regulating reservoirs captured 33,877 AF and 29,855 AF, respectively. He also reported that the excess deliveries to Mexico were 1,129 AF, compared to about 15,800 AF this time last year. Finally, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 59,940 AF. He added that Bypass flows are on-track to be between 120,000 AF and 130,000 AF.

Mr. Harris remarked that the Lower Basin States plan to press the Bureau of Reclamation (Reclamation) to implement additional measures to reduce the amount of water bypassed to the Cienega, noting that the Lower Basin States developed a bypass flows replacement report several years ago. He stated that it is time for Reclamation to review these options which include pumping the 242 Well Field more and more blending of the saline drainage in the Yuma area, as well as reoperating the Yuma Desalting Plant (YDP) at some level. He stated that there needs to be a discussion between Mexico and NGOs about identifying how much water the Cienega needs, noting that 120,000 to 130,000 AF of the water bypassed is coming out of Lake Mead every year and the Lower Basin States need to aggressively push this issue with Reclamation.

Mr. Harris presented figures showing the dramatic decline of Lakes Powell and Mead from December 1999, when the reservoirs were 88% and 96% of capacity respectively, to April 25, 2022, with a capacity of 24% and 31%, respectively. He noted that the figures were shared with the Mexican delegation in Mexico City at a recent binational meeting discussing additional conservation measures that could be done in Mexico. Mr. Harris stated that the figures illustrate how far we have come in twenty-three years and the gravity of the current situation.

Mr. Harris provided an update on the ongoing Water-Year 2022 reservoir operations. He stated that the first prong of the operations plan is the final approved Upper Basin Drought Operation Plan (DROA) for 2022, which is drought operations plan for the period of May 2022 to April 2023. He stated that the plan was approved by Assistant Secretary Trujillo, and it will shift 500,000 AF of water from Flaming Gorge reservoir, with the potential for more from either the Aspinall Unit or Navajo Reservoir, to Lake Powell.

Board member Madaffer inquired whether the development of DROA plan was collaborative or an action made by Reclamation. Mr. Harris reported that the development of DROA was a collaborative effort pursuant to the 2019 Upper Basin Drought Contingency Plan (DCP), between the Upper Division States and Reclamation. He added that the determination of the DROA volume was a collective effort between the four Upper Division States and was approved by the Upper Colorado River Commission (UCRC). He noted that Reclamation would

probably have had to make this decision anyway if the Upper Division States had not helped to develop a plan. Mr. Harris reported that originally, they contemplated shifting 650,000 AF but dialed it down to 500,000 AF once there was more clarity associated with the impact of reducing releases out of Glen Canyon Dam.

Mr. Harris explained that three letters detailing these actions have been released. The first letter from the Secretary of the Interior was sent out to the Seven States requesting input regarding the downward adjustment to the releases out of Glen Canyon Dam for the remainder of Water Year-2022 from 7.48 MAF, as called for in the Annual Operation Plan (AOP), down to 7 MAF. He added that it has now been finalized and is being built into Glen Canyon Dam's monthly operations going forward. Between May of 2022 and the end of September they will have reduced the release out of Glen Canyon Dam thus retaining 480,000 acre-feet in Lake Powell. He added that the combined effect of these two activities in Water Year-2022 results in 980,000 acre-feet remaining in Powell, noting that there is the potential that the 480,000 will ultimately be returned to Lake Mead. Mr. Harris reported that Lake Mead will be credited as though the water was delivered. Mr. Harris stated that for the upcoming 2023 AOP, the tier determination and operating conditions based on August 24-Month Study for Lake Powell and Lake Mead will be blind to the water staying in Lake Powell and Lake Mead will act as though the water was released to it.

Mr. Harris explained that there will be very close coordination and consultation between the seven states and Reclamation with respect to the condition of the two reservoirs. He added that there have not been any tier determinations set for Lake Powell for CY-2023 and there will be an informed discussion based upon conditions at the time. Board member Madaffer inquired whether there is a statistical analysis of the impact of the reduced runoff from the snowpack. He added that there is a possibility that the water left in Lake Powell will not return to Lake Mead if Lake Powell elevation continues to decline. Mr. Harris stated the 24-Month Study reports will provide more information about runoff conditions to the reservoirs, but this concern is shared by Reclamation and the other states. He stated that NOAA researchers are projecting a third La Nina year for this coming winter. He reported that they all have to collectively agree how to approach the 2023 AOP and what the implications will be for both reservoirs. He added that if Lake Powell's elevation falls below 3,490 feet, the implications for Lake Mead will be profound. Board member Jones added that the probability of the third year of La Nina is just over 50%, so it is not a strong probability yet, but we will have a better idea in the summer.

## **STATUS OF COLORADO RIVER BASIN PROGRAMS**

### **State and Local Report**

Ms. Jones, representing the California Department of Water Resources (DWR), reported that the statewide precipitation was 74% of average and varies throughout the State. The hydrologic region doing the best is the northeastern corner of the state, which is almost normal. The Colorado River Hydrologic Region is currently 44% percent of average for the water year-to-date, adding that the State's precipitation season has ended.

Ms. Jones compared the conditions of the Shasta Lake and Lake Folsom reservoirs. She stated that Lake Folsom has a capacity of 1 MAF, and currently storage is more than 100% of the historical average. Shasta Lake is the largest reservoir in the state and, unfortunately, the current storage is just 48% of historical average, which has impacted the Central Valley Project (CVP) allocation, including the first-ever health and safety only allocation for the CVP Municipal and Industrial (M&I) users. She reported that there have also been large cuts to the Sacramento Water Rights settlement contractors, with transfers down to 100,000 AF from 400,000 AF.

Ms. Jones reported on the runoff forecasts based on the statewide snow survey as of May 1<sup>st</sup>. The runoff forecasts for most of the watersheds were less than 50% of average, noting that Yuba watershed's runoff forecasts fared slightly better. She reported that in the Colorado River Basin watershed there is a significant difference between the average precipitation and how it translates to runoff, noting that it is a result of long-term warming in the climate system.

Board member Peterson, representing The Metropolitan Water District of Southern California (MWD), reported that as of May 1<sup>st</sup>, MWD's system storage is 70% of capacity and the Colorado River aqueduct is on an 8-pump flow through September. He added that as of May 6<sup>th</sup> the diversion target is 1.117 MAF, and MWD has currently diverted 303,000 AF. He stated that water use has increased a bit due to dry conditions over the past few months. He stated that the storage target for the Desert Water Agency is 15,000 AF, which is lower than it has been in the past.

Mr. Peterson reported that MWD declared a water shortage emergency for the State Water Project (SWP) dependent areas, which included the Las Virgenes and Calleguas water district. He stated that the eastern side of these water districts have been developing some fixes that have allowed them to use Colorado River water, but the western side of the water district has limited access to Colorado River Water. He added that the Greg Avenue pumping plant is the source of water, which is in the City of Los Angeles. Mr. Peterson reported that MWD's

Emergency Water Conservation Plan for State Water Project (SWP) dependent areas have created two options for compliance. He stated that first option is one day a week of outdoor water irrigation beginning on June 1<sup>st</sup>, with expectations to hand water trees, and affirmed local decisions for watering sports fields and public parks. He added that several of public parks in the area irrigate with reclaimed water, but with less water use there will also be less sewer water available for the reclaimed water system. Mr. Peterson stated that the second option for compliance with the Emergency Water Conservation Plan is to adopt ordinances that mandate specific volumetric limits for each agency with fines of \$2000 per acre-foot on monthly volume above supply limit of the SWP.

Vice Chairman Pettijohn, representing LADWP, reported that current precipitation conditions are tracking closely with conditions from 2020-2021. He stated that the additional snowpack that was deposited from storms in December and January did not translate into additional run-off, which is not good news for the Los Angeles Aqueduct. He stated that the Los Angeles Aqueduct will only produce close to 50,000 AF of flow to Los Angeles this year.

Vice Chairman Pettijohn stated that mayor of Los Angeles made a determination to go to volumetric allocations from MWD. That decision was made because it is believed that the LADWP can continue to meet its shortage allocation without MWD directing LADWP retail customers. He stated that LADWP is continuing to manage retail response and live within its allocation from MWD.

#### Minute No. 323

Mr. Harris reported that on April 27<sup>th</sup>, the Minute Oversight Group held a meeting in Mexico City. He stated that the meeting was attended by representatives from Arizona, California, Nevada, and the Upper Colorado River Commission (UCRC), Reclamation and the U.S International Boundary and Water Commission (IBWC) and Mexican counterparts.

Mr. Harris explained that the purpose of the meeting was to provide a thorough update on the water supply conditions in the Basin, hydrology runoff forecasts and a discussion of the impact of the two proposed drought operational efforts, which include the downward adjustment in the release from Glen Canyon Dam and Upper Basin Drought Operations.

Mr. Harris reported that Mexico and the United States have been working very closely over the past few months on the development of the "Proactive Measures Ad hoc Group." He explained that the U.S. is working with Mexico to see if they are willing to stand up additional water conservation in the Mexicali Valley that can be stored in Lake Mead to bolster the 500-plus

plan. He stated it is an additive measure, to which Mexico has been receptive. He added that Mexico fully understands the short and long-term implications of the on-going drought and is willing to conserve additional water supplies, noting that Mexico is even considering developing system conservation. He stated that Mexico has a toolbox of options they are considering including fallowing, system efficiency improvements, wastewater reclamation and reuse in the Mexicali Valley. Mexico is also open to the option of forbearing Colorado River Water and leaving it in their reserve.

Mr. Harris stated that he will be able to quantify the expected volumes of water conservation for 2022 and 2023 at an upcoming meeting. He stated that Reclamation will incorporate these figures into subsequent 24-Month Study projections.

Mr. Harris added that the Director General of Conagua and the Deputy Director, who was the CILA Commissioner, attended the meeting. He added the Mexican delegation will be touring the Lake Mead and Lake Powell and may meet with water users sometime in the summer. Mr. Harris stated that he will work with Bill Hasencamp at MWD and Tina Shields at IID to coordinate a visit with the delegation.

Mr. Harris reported that the Minute Oversight Group also received updates on the various work groups, adding that the work groups have been ramping back up post-COVID. He added that Projects work group is behind the curve with regular water conservation activities associated with Minute 323, but the expectation is that the influx of federal funds will help accelerate the projects. Mr. Harris reported that the Environmental work group has made significant progress. There are new conservation areas in the Limitrophe Division and further down the Delta to develop additional habitat restoration areas.

### Colorado River Basin Salinity Control Program

#### *Colorado River Basin Salinity Control Program Implementation*

Mr. Harris provided an update on the Colorado River Basin Salinity Control Program. The Salinity Control Forum Work Group held a scheduled hybrid in-person / virtual meeting on April 11-13, 2022, with in-person participation at the at the Washington County Water Conservancy District Offices in St. George, Utah. Key topics under discussion included updates from Reclamation, the U.S. Geological Survey, and Natural Resources Conservation Service on program funding, research, and implementation. The Work Group also discussed salinity control scenarios and data to be used to develop the 2023 Triennial Review of Water Quality Standards for Salinity in the Colorado River System. Section 303 of the Clean Water Act amendments to the Federal

Water Pollution Control Act require that water quality standards are reviewed every three years by the Forum.

Mr. Harris report that during the Work Group meeting, Reclamation indicated the Commissioner has approved the implementation of a Test Injection Plan at the Paradox Valley Unit (PVU) that will restart injection of brine at a rate of 115 gallons per minute, equivalent to approximately 5500 tons of salt control per month. It will take Reclamation up to 8 weeks to get the PVU facility up and running again after the extended closure because new contractors will need to be hired and trained. PVU operations will figure prominently at the May meeting of the Salinity Control Forum to be held May 11-12 in Moab, Utah. Forum members will tour the PVU facilities in Paradox Valley and tour the facilities of Intrepid Potash located in Moab. Intrepid Potash operates a salt evaporation pond facility which is supplied salt through underground solution mining of the Paradox Formation. Intrepid Potash has expressed some interest in the potential to participate in a long-term solution of brine disposal at PVU.

Board member Madaffer asked if the observed increases in salinity in the Dolores River was a result of natural conditions or the shutdown of operations at PVU. Mr. Harris responded that it was probably a combination of the two factors.

Board member Madaffer endorsed the concept of working with Intrepid Potash to take salt generated at PVU, and the ability to develop additional supplies of potash.

Mr. Cheng from CVWD asked if the benefits of restarting the PVU operations have been quantified with respect to improving salinity conditions in the river. Mr. Harris responded that Reclamation will be looking into this using the CRSS Salt Model.

#### Glen Canyon Dam Adaptive Management Program

Mr. Harris reported that as Lake Powell declines, there is an increased probability of smallmouth bass from Lake Powell passing through Glen Canyon Dam and into the Grand Canyon where there are humpback chub. Mr. Harris reported that several years ago, green sunfish established a population below Glen Canyon Dam after likely passing through the dam intakes, so there is precedent for nonnative species surviving travel through the dam to establish a downstream population. Mr. Harris reported that smallmouth bass are a voracious predator that could have a significant effect on native fish populations. Mr. Harris reported that the Glen Canyon Dam Adaptive Management Program is evaluating options to prevent the passage of smallmouth bass and limit any population success downstream.



Mr. Harris reported that bug flows are underway for summer 2022. Mr. Harris reported that bug flows aim to provide low, steady weekend flows to increase egg survival for insects, which should provide additional food supplies for fish.

#### Lower Colorado River Multi-Species Conservation Program

Mr. Harris reported that Reclamation released a draft implementation report and proposed budget for FY 2023 for the Lower Colorado River Multi-Species Conservation Program (LCR MSCP). The annual budget for the LCR MSCP has decreased in recent years from approximately \$35 million to \$25 million as habitat restoration is completed and the program moves towards maintenance.

Mr. Harris reported that the LCR MSCP is seeking increased permit coverage for flow reductions. The LCR MSCP submitted a Biological Assessment to the U.S. Fish and Wildlife Service (USFWS). USFWS is working on a new Biological Opinion that is expected in August.

#### **GENERAL ANNOUNCEMENTS**

Chairman Nelson introduced representatives of the Colorado River Indian Tribes (CRIT) and the tribal vice chairperson, Mr. Dwight Lomayesva. Mr. Robert Page with CRIT stated that CRIT's first priority is the utilization of its water, noting that they have water in Arizona and California. He stated that the CRIT is actively working to get a piece of conservation legislation in front of Congress, which would allow the tribe to transfer conserved water off of its reservation. He also stated that the CRIT is amenable to working with agencies to help with conservation efforts and improving reservoir levels in Lake Mead and Lake Powell. Mr. Harris added that he met with the general manager of MWD, Adel Hagekhalil, at the Colorado River Water Users meeting in December and MWD plans to follow up with the CRIT over this coming year.

#### **Washington DC Updates**

Mr. Harris reported that the Water Resources Development Act (WRDA) is moving through the Senate and House of Representatives, noting that there are good infrastructure projects being proposed for Reclamation and the Corps of Engineers (Corps).

Mr. Harris reported that the House Energy and Water Appropriations held a hearing to review budget proposals for the Corps and Reclamation for Fiscal Year 2023. He stated that

western lawmakers, including Representative Anne Kirkpatrick (D-AZ), are working closely with the Assistant Secretary of Water and Science, Tanya Trujillo, and her staff on shortage condition issues in the Basin. He stated that Acting Commissioner David Palumbo also provided testimony about how to ensure sufficient water levels are kept in the reservoir.

#### **ADJOURNMENT**

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 11:10 a.m.



Minutes of Meeting  
COLORADO RIVER BOARD OF CALIFORNIA  
Wednesday, June 15, 2022

A meeting of the Colorado River Board of California (Board) was held on Wednesday, June 15, 2022, at the Sheraton Ontario Airport Hotel, 429 North Vineyard Avenue, Ontario, California 91764.

Board Members and Alternates Present:

Dana B. Fisher, Jr. (PVID)  
John B. Hamby (IID)  
Jeanine Jones (DWR Designee)  
Glen D. Peterson (MWD)

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

Board Members and Alternates Absent:

David De Jesus (MWD Alternate)  
Castulo Estrada (CVWD Alternate)  
James Hanks (IID Alternate)  
Christopher Hayes (DFW Designee)

Delon Kwan (LADWP Alternate)  
Jim Madaffer (SDCWA)  
Peter Nelson, Chairman (CVWD)  
Mark Watton (SDCWA Alternate)

Others Present:

Steve Abbott  
Dee Bradshaw  
Robert Cheng  
Dennis Davis  
Dan Denham  
Tommy Drennam  
Chris Harris  
Bill Hasencamp  
Larry Lai  
Laura Lamdin  
Tom Levy  
Dwight Lomayesva

Aaron Mead  
Jessica Neuwerth  
Robert Page  
David Rheinheimer  
Kelly Rodgers  
Tom Ryan  
Alexi Schnell  
Tina Shields  
Gary Tavetian  
Petya Vasileva  
Jerry Zimmerman

### **CALL TO ORDER**

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

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

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

### **ADMINISTRATION**

Vice Chairman Pettijohn asked for a motion to approve the April 13, 2022, Board meeting minutes. Mr. Fisher moved that the minutes be approved, seconded by Mr. Hamby. By roll-call vote, the minutes were unanimously approved.

Vice Chairman Pettijohn asked for a motion to approve the Fiscal Year 2022/2023 budget. Mr. Peterson moved that the budget be approved, seconded by Ms. Jones. By roll-call vote, the budget was unanimously approved.

### **Consideration of Application for Water Subcontract from the Lower Colorado Water Supply Project (Action)**

Mr. Harris summarized a proposed Board Resolution 2022-2 that recommends a subcontract for the Lower Colorado Water Supply Project (Project) water in San Bernadino County, California be offered to the applicant and directs the executive director to forward the application to Reclamation. Mr. Chad Hill is requesting a new contract for 1.0 acre-feet of future use. If the Board recommends approval, a new subcontract would be developed by Reclamation for the owner at a future point in time.

Vice Chairman Pettijohn asked for a motion to approve the resolution on the application for the Lower Colorado River Water Supply Project. Mr. Fisher moved that the resolution be approved, seconded by Mr. Hamby. By roll-call vote, the resolution was unanimously approved.

## **COLORADO RIVER BASIN WATER REPORTS**

### **Colorado River Basin Report**

Mr. Harris reported that as of June 13<sup>th</sup>, the water level at Lake Powell was 3,536.20 feet with 6.64 million-acre feet (MAF) of storage, or 27% of capacity. The water level at Lake Mead was 1,045.57 feet with 7.37 MAF of storage, or 28% of capacity. The total system storage was 20.71 MAF, or 34% of capacity, which is 4.31 MAF less than system storage at this time last year.

Mr. Harris reported that as of June 3<sup>rd</sup>, for Water Year-2022 (WY-2022), the observed May inflow to Lake Powell was 1.38 MAF, or 67% of normal. The June inflow forecast to Lake Powell is 1.20 MAF, or 49% of normal. The forecasted unregulated inflow into Lake Powell for WY-2022 is 5.61 MAF, or 58% of normal and the WY-2022 forecasted April to July inflow to Lake Powell is 3.5 MAF, or 55% of normal. Mr. Harris reported that overall precipitation conditions in the Upper Colorado River Basin were 93% of normal and the current Basin snowpack is 95% of normal. Mr. Harris reported that the snow accumulation season for the Basin has concluded, and the existing snowpack is melting.

Mr. Harris reported that through the end of May, the Brock and Senator Wash regulating reservoirs captured 45,169 AF and 38,662 AF, respectively. He also reported that the excess deliveries to Mexico were 1,403 AF, compared to 16,963 AF this time last year. Finally, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 65,044 AF, through June 7<sup>th</sup>.

### *2023 Colorado Annual Operating Plan, First Consultation*

Mr. Harris reported that the first consultation for the 2023 AOP was held on June 1<sup>st</sup> via webinar and was hosted by the Upper Colorado Basin region. He added that the draft AOP is available on the Upper Colorado Basin region and Reclamation websites. He stated that based on the current water supply projections from the May 24-Month study, a 7.581 MAF release is projected from Glen Canyon Dam. He stated that Lake Mead will be operating in a shortage condition, noting that the shortage condition will be Tier 1 given the operational neutrality benefit of the release reduction from Glen Canyon Dam. The projected delivery to Mexico is based upon the Binational Water Scarcity Contingency Plan and shortage reductions of Minute 319. He added that Mexico is considering creating additional conservation and storage in the Mexican water reserves.

Mr. Harris reported that the second consultation meeting will be held in July and the third meeting will be held in August or early September. He added that the results of the August 24-

Month Study report are needed to finalize the AOP. Board member Peterson requested more information about the status of the Mexican water reserve. Mr. Harris stated that the information would be presented at the next CRB meeting.

### **State and Local Report**

Ms. Jones, representing the California Department of Water Resources (DWR), reported that the State's precipitation season has concluded. She stated that the statewide reservoir storage is about 70% of average. She stated that the winter precipitation conditions were very dry, adding that there is a about a 60% chance of a third La Nina season, which is rare.

Ms. Jones reported that the State Water Project and Federal Central Valley Project (CVP) are operating under a temporary emergency change order to allow DWR to hold more water back in upstream reservoirs, noting that the existing temporary emergency change will limit CVP and SWP exports collectively to 1,500 cfs in the Delta, with 600 cfs attributed to the SWP. She added that the order will conclude in the fall and DWR will analyze the hydrology and modeling results to determine if additional actions will be needed.

Ms. Jones reported that for the first time ever the CVP is imposing health and safety restrictions on its M&I customers, noting that the agricultural contractors received a zero percent allocation and the settlement contractors in the Sacramento Valley received an 18% allocation.

Board member Peterson, representing The Metropolitan Water District of Southern California (MWD) reported that as of June 1<sup>st</sup>, MWD's total system storage is 70% of capacity and Colorado River Aqueduct is on an 8-pump flow through September. The diversion target is 1.17 MAF and as of June 13<sup>th</sup>, 340,000 AF has been diverted. He stated that water deliveries are expected to decline in June due to restrictions set in MWD's Emergency Water Shortage Declaration. He stated that the storage target for the Desert Water Agency is 15,000 AF.

### **STATUS OF COLORADO RIVER BASIN PROGRAMS**

#### **Lower Colorado River Basin States Near-Term Drought Response Actions**

Mr. Harris reported on the drought response actions that have been taken in Water Year-2022. He stated that the Upper Basin Drought Response Operations plan was approved in May, which results in 500,000 AF being shifted from Flaming Gorge reservoir down to Lake Powell over the period from May 2022 to the end of April 2023. He stated that concurrently with that action,



Reclamation worked with the Lower Basin States to reach an agreement to reduce the annual release for 2022 from Glen Canyon Dam from 7.48 MAF to 7 MAF. He stated that this results in another 480,000 AF of storage in Lake Powell. The combined actions create almost 1 MAF of water in Lake Powell.

Mr. Harris explained that the Reclamation's rationale for implementing these actions is to protect Glen Canyon Dam's ability to release water effectively if the water level drops below 3,490 feet and to protect its power generation ability. He added that releasing water through the dam's river outlet work may cause harm to the infrastructure, adding the Reclamation has deferred maintenance on the outlet works for decades. He stated that Reclamation is currently working on upgrading the outlet works by the end of 2024.

Mr. Harris stated that in FY-2022, 613,000 AF of water will be conserved through the actions developed under the 2007 Interim Guidelines, the current Drought Contingency Plan (DCP) from the Lower Basin States, and the Minute 323 and Binational Water Scarcity Contingency plan. He stated that there has been about 150,000 AF of water generated from 500-Plus plan activities in WY-2022. He added that the cumulative water created between 2021 and 2022 is close to 250,000 AF.

Mr. Harris stated that Reclamation is profoundly concerned about protecting critical elevations in Lakes Powell and Mead. He stated that Reclamation preformed a series of preliminary modeling that examined protecting Lake Powell at elevation 3,500 feet and Lake Mead at 1,000 feet and Lake Powell at elevation 3,525 feet and Lake Mead at 1,020 feet, as well as the necessary protection volumes. He added that Reclamation has begun discussion among the Basin States, Mexico, NGOs and Reclamation plans to reach out to the Tribes.

Mr. Harris discussed the Senate Energy and Natural Resources Committee hearing. He stated that Ms. Camille Touton, Commissioner of the Bureau of Reclamation, stated that the Department of Interior and Reclamation plan to identify a target protection volume by mid-August and it will be implemented by 2023. Ms. Touton stated that if a consensus-based plan is not available, Interior will be ready to take action. Mr. Harris reported that the federal team and the Basin States have been meeting over the past two to three weeks. He added that he has briefed the governor's drought taskforce and CNRA and DWR leadership on the current status of the Basin drought response actions.

Board member Fisher remarked that the federal response to this crisis is to implement curtailment if necessary to preserve the elevations in Lakes Powell and Mead. He stated at an elevation of 895 feet, Hoover Dam will not be able to release water. Mr. Fisher stated that he is

in favor of the California agencies working together to contribute to the consensus-based plan and present it to the federal team. He cautioned that IID and Palo Verde Irrigation District (PVID) may not sign on to the plan because they will take the brunt of additional water conservation actions. He also added that Reclamation and Interior are considering curtailment of ICS withdrawal from Lake Mead, which is another issue that would impact the California agencies. He stated that California needs to work to develop the best possible plan to deliver to the federal team.

Mr. Harris stated that drought conditions across the American west are grim. He concurred with Mr. Fisher and stated that California needs to work with partners across the Basin at the federal and state level, and with Mexico and try to develop a plan over the next 40 to 50 days.

Board member Peterson expressed concern about California not having representation at the hearing. Mr. Harris concurred and stated that some of the testimony presented by Senator Kelly from Arizona regarding Arizona carrying the load in conservation contributions was factually inaccurate. He stated that California has contributed to conservation efforts with the Quantification Settlement Agreement (QSA) and the 2007 Guidelines which created water for Lake Mead and kept Arizona out of Tier 1 shortage for close to six or seven years.

Board member Jones remarked that drought issues on in the Colorado River Basin impact California and given the poor hydrology on the SWP, California is subject to year-to-year hydrology challenges. She added that the State needs a hydrologic year like 2017 to recover the State's reservoir storage. She noted that it cannot be expected that California will have a good water year next year and some of the same actions that are being taken this year might be needed again next year.

Board member Fisher remarked that during the hearing, Pat O'Toole from the Family Farm Alliance attributed the reduction in runoff in the Upper Basin largely to unmanaged forest. He stated tree saplings are filling in the gaps between old trees increasing water demand. He added that last year the snowpack was close to 80% of average but the runoff was about 30% of average, noting that this year the snowpack is close to normal, but the runoff has ranged between 50% and 70%. Mr. Harris stated that the lack of forest management and or fire suppression has shifted evapotranspiration (ET) rates across some of the national forests. He added that aridification and increasing temperatures due to climate change have also increased ET rates.

## Colorado River Basin Salinity Control Program Implementation

### *Colorado River Basin Salinity Control Forum and Work Group Meetings*

Mr. Harris provided an update on the May Colorado River Basin Salinity Control Forum and Work Group meetings held in Moab, Utah on May 9-12. In addition to the working meetings, the week included tours of the Paradox Valley Unit salinity control project located in Montrose County, Colorado, Atlas uranium tailings removal project located outside of Moab, and the Intrepid Potash facilities located outside of Moab. Key topics under discussion during the working meetings included updates from Reclamation, the U.S. Geological Survey, and Natural Resources Conservation Service on program funding, research, and implementation. The Forum and Work Group also discussed salinity control scenarios and data to be used to develop the 2023 Triennial Review of Water Quality Standards for Salinity in the Colorado River System.

Mr. Harris stated that Reclamation is restarting brine injection at the Paradox Valley Unit for at least some level going forward that will prevent 5,500 tons of salt per month from entering the Dolores River. During the test PVU will be operated at 66% of the most recent operating capacity. The Forum expressed to Reclamation during meeting the interest in pursuing long-term salinity control at PVU.

Mr. Harris stated that the Work Group and Forum members toured the Intrepid Potash facilities to learn more about the operations and possibilities to make use of the Paradox Valley salt. Intrepid Potash has expressed some interest in harvesting salt generated at PVU. Intrepid Potash creates commercial products including agricultural fertilizers, animal feed ingredients, and various salt products.

Mr. Harris described that the Work Group and Forum members toured the Atlas Uranium Mine Tailings clean-up site outside of Moab, Utah. Significant progress is being made on the clean-up of the site. Seventy-eight percent of the mill tailings have been removed from the site (12.4 million tons). Waste is transported by rail to an engineered waste disposal site located near Crescent Junction, Utah.

## Glen Canyon Dam Adaptive Management Program

Ms. Neuwerth reported that the Glen Canyon Dam Adaptive Management (GCDAMP) program is struggling with the same issues we are basin-wide, having less water to work with. One particular problem is that as the water surface at Lake Powell gets closer to the intakes, the nonnative, invasive fish in Lake Powell are also getting closer to the intakes. If some of the nonnative fish survive and reproduce below the dam, they could endanger native fish populations in stretches of the river where endangered natives are currently doing well.

Ms. Neuwerth reported that the GCDAMP received direction to evaluate solutions that could prevent nonnative fish from passing through the dam or to manage nonnative fish populations if they do become established.

Ms. Neuwerth reported that the GCDAMP is conducting a “bug flow” experiment that provides a low steady flow release from Glen Canyon Dam on the weekends that is intended to help the food base for native fish. A group has been meeting twice a month to assess potential impacts of implementing the experiment.

#### **Lower Colorado River Multi-Species Conservation Program**

Ms. Neuwerth reported that the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) met last month from May 11<sup>th</sup> to 12<sup>th</sup>. The annual meeting included a review of accomplishments from the previous year, work in progress this year, and future planning. Ms. Neuwerth reported that the program is meeting approximately 80 percent of its habitat goal at the moment and is ahead of schedule in putting acreage in the ground.

Ms. Neuwerth reported that yellow-billed cuckoos are doing well on LCR MSCP habitats, although southwestern willow fly-catchers have still not been detected breeding in LCR MSCP habitats. Ms. Neuwerth also reported that the oldest known summer tanager has been captured at a conservation area and released again by the program.

Mr. Harris added that John Swett, Reclamation’s program manager for the LCR MSCP is retiring and that Laura Vecerina the deputy program manager, retired six months ago. These are big changes for the program.

#### **GENERAL ANNOUNCEMENTS**

Mr. Harris reported that a lengthy write-up of Washington, DC updates is available in the June Monthly Report. Ms. Jones reported that DWR issued a letter congratulating the new director of the National Weather Service. The letter also expressed the need to increase funding for seasonal to sub-seasonal forecasting (S2S). She added that a Basin States letter seeking increased funding for S2S forecasting would also be very helpful.

#### **ADJOURNMENT**

With no further items to be brought before the Board, Vice Chairman Pettijohn adjourned the meeting at 10:55 a.m.



RESOLUTION  
of the  
COLORADO RIVER BOARD OF CALIFORNIA  
Regarding  
Potential Applicant to Receive  
Lower Colorado Water Supply Project Water  
2022-3

**WHEREAS**, the United States Congress, on November 14, 1986, enacted the Lower Colorado Water Supply Act (P.L. 99-655) (amended through P.L. 109-103), to authorize the construction and operation of the Lower Colorado Water Supply Project (Project) to provide a limited amount of Colorado River water to be made available on an exchange basis to entities in California, whose lands are located adjacent to the Colorado River, and who either do not have any, or do not have a sufficient, contractual entitlement to use Colorado River water; and

**WHEREAS**, the City of Needles has agreed to assume the administrative responsibility for Project beneficiaries in San Bernardino, Riverside, and Imperial Counties; and

**WHEREAS**, the Colorado River Board provides recommendations to the U.S. Bureau of Reclamation (Reclamation) regarding the eligibility of non-federal applicants to receive Project water; and

**WHEREAS**, the Colorado River Board on September 14, 2001, notified owners of property within the Colorado River flood plain and/or the accounting surface as delineated by the U.S. Geological Survey in California of the availability of Project water;

**WHEREAS**, the staff of the Colorado River Board on August 10, 2022, submitted the eligible applicant to the Board for its recommendation;

**NOW, THEREFORE, BE IT RESOLVED THAT** the Colorado River Board hereby recommends a subcontract for Project water be offered to the applicant listed on the attachment and directs the Executive Director to forward the application to Reclamation with its recommendation with the following provisos:

- (1) The applicant appears to be eligible to receive Project water, as shown in the attached table and summarized below:

County	Numbers of Parcels	Current Use (AF/YR)	Future Use (AF/YR)	Total Use (AF/YR)
San Bernardino	1	0	1	1

- (2) At the time a subcontract is prepared, the annual quantity of water to be diverted, consumptively used, and returned will be refined to specify quantities of water to be reported

in accordance with Article V in the Consolidated Decree in *Arizona v. California, et al.* entered March 27, 2006, (547 U.S. 150 (2006));

- (3) Reclamation should include provisions in the subcontract that the water to be put to reasonable beneficial use within a ten-year period of time, subject to renewal for another ten-year period.

**THE FOREGOING RESOLUTION** is approved and adopted by the Colorado River Board, this 10<sup>th</sup> day of August 2022.

---

Peter Nelson, Chairman



San Bernardino County Recent Applications Approved 06/15/2022:

First Name	Last Name	Mail Number	Mail Street/P.O. Box	Mail City	State	Mail Zip	APN	Legal Description	Type of Use		Type Of Diversio	Current Use	Future Use	Total Use	Doc. No.
									Current	Future					
Susan	McClanahan						0660 261 36 0000	PARCEL MAP 15871 PARCEL	DOM	DOM	well	0	1	1	644
								A BOOK 199 PAGE 19							

**COLORADO RIVER BOARD OF CALIFORNIA**  
**APPLICATION FOR LOWER COLORADO WATER SUPPLY PROJECT WATER**

**Applicant Information:**

Name: Susan M McClanahan  
First Middle Last  
Mailing Address: [REDACTED] 92335  
Number Street City State Zip Code  
Telephone Number: [REDACTED] Fax Number: ( ) -  
E-mail Address: [REDACTED]

**1. Place of Use:**

Property County Assessor Parcel Number (APN): 0660-261-36-0000, County: San Bernardino

Parcel Legal Description: \_\_\_\_\_

Property Address, if available: 4800 My Place Rd. Needles CA 92363

Property Owner(s): Bars Family trust

**2. Location of Point of Diversion: (Surface or well location) (A map, illustration, and/or drawing may be included)** ☒ Existing well/pump ☐ Proposed new well/pump

**3. Purpose of Use:**

Domestic (☒ Residential ☐ Commercial), ☐ Municipal, ☐ Industrial, ☐ Recreational

Please describe: \_\_\_\_\_

**4. Quantity of Water Requested:**

(a) current use (within the next calendar year): \_\_\_\_\_ acre-feet annually

(b) future use (not including current use): \_\_\_\_\_ acre-feet annually

**5. Additional Comments:**

**Submitted by (all the individuals on legal title):**

Print Name: Sarah Manning

Signature: [Signature], Date: 4-11-22

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_, Date: \_\_\_\_\_

**Mail to: Colorado River Board of California, 770 Fairmont Avenue, Suite 100, Glendale, CA 91203-1068**

**FOR COLORADO RIVER BOARD USE ONLY**

Date Received: \_\_\_\_\_ Recommendation: ☐ Yes ☐ No



Ptn. Fractional Sec.25&36, T.10N.,R.22E., S.B.B.&M.

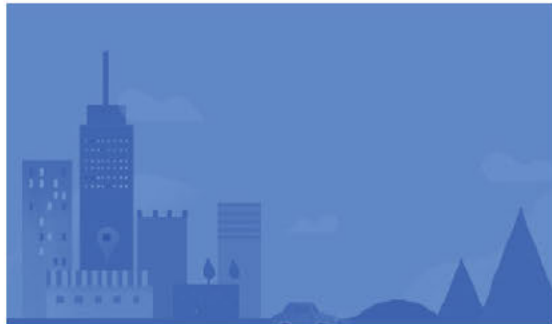
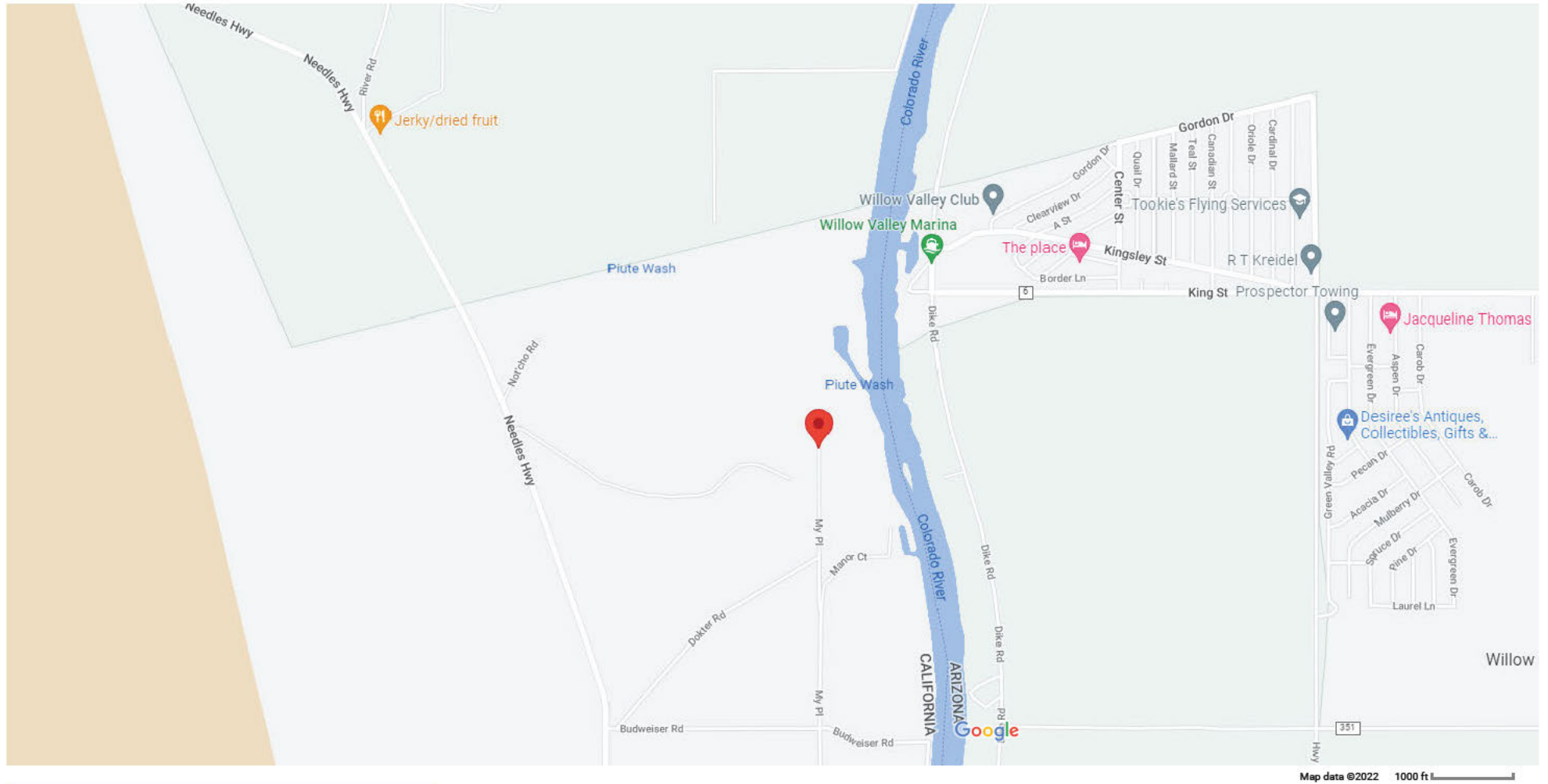
0660 - 26



Assessor's Map  
Book 0660 Page 26  
San Bernardino County

REVISED  
01/15/16 RU  
01/19/16 RU  
02/06/19 RU

Google Maps 4800 My PI



4800 My PI





8/1/2022

# LOWER COLORADO WATER SUPPLY REPORT

River Operations  
Bureau of Reclamation

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

(702) 293-8373

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

	PERCENT	Content 1000 ac-ft (kaf)	Elev. (Feet above mean sea level)	7-Day Release (CFS)
CURRENT STORAGE	FULL			
LAKE POWELL <sup>1</sup>	27%	6,212	3,536.20	11,000
* LAKE MEAD	27%	7,041	1,040.92	11,600
LAKE MOHAVE	95%	1,725	643.97	11,000
LAKE HAVASU	96%	596	448.84	8,900
TOTAL SYSTEM CONTENTS **	34%	20,085		
As of 7/31/2022				
SYSTEM CONTENT LAST YEAR	40%	24,042		
*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	64%	1,456		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	8%	80	1,105.88	25
Forecasted Water Use for Calendar Year 2022 (as of 7/25/2022) (values in kaf)				
NEVADA			256	
SOUTHERN NEVADA WATER SYSTEM				226
OTHERS				30
CALIFORNIA			4,600	
METROPOLITAN WATER DISTRICT OF CALIFORNIA				1,114
IRRIGATION DISTRICTS				3,470
OTHERS				16
ARIZONA			2,143	
CENTRAL ARIZONA PROJECT				1,039
OTHERS				1,104
TOTAL LOWER BASIN USE				6,999
DELIVERY TO MEXICO - 2022 (Mexico Scheduled Delivery + Preliminary Yearly Excess <sup>2</sup> )				1,469
OTHER SIGNIFICANT INFORMATION				
UNREGULATED INFLOW INTO LAKE POWELL - AUGUST FINAL FORECAST DATED 8/1/2022				
		MILLION ACRE-FEET	% of Normal	
FORECASTED WATER YEAR 2022		5.891	61%	
PRELIMINARY OBSERVED APRIL-JULY 2022		3.750	59%	
JULY OBSERVED INFLOW		0.491	51%	
AUGUST INFLOW FORECAST		0.200	53%	
		Upper Colorado Basin	Salt/Verde Basin	
WATER YEAR 2022 PRECIP TO DATE		99% (24.8")	88% (18.6")	
CURRENT BASIN SNOWPACK		NA% (NA)	NA% (NA)	

<sup>1</sup>Reclamation implemented the updated 2018 Lake Powell live storage capacity of 23.314 maf as of July 1, 2022. This reflects a 4% decrease since the last reservoir survey in 1986. The results from the latest survey can be found here: <https://www.usgs.gov/news/national-news-release/lake-powells-storage-capacity-updated-first-time-1986>.

<sup>2</sup>Delivery to Mexico forecasted yearly excess calculated using year-to-date observed and projected excess.



**LOWER COLORADO BASIN REGION  
CY 2022**

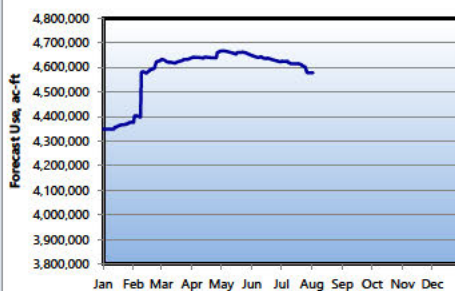
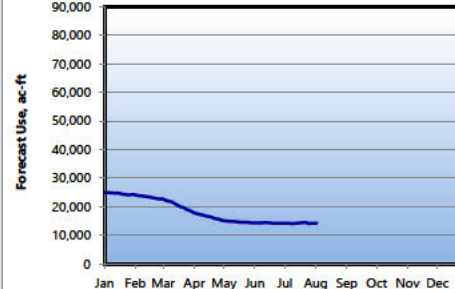
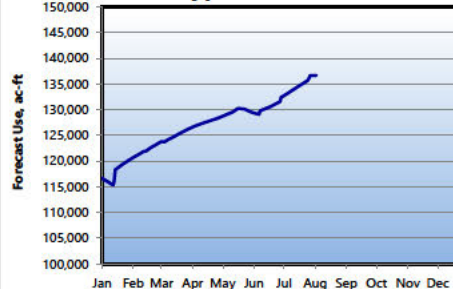
ARIZONA, CALIFORNIA, NEVADA, MEXICO

FORECAST OF END OF YEAR CONSUMPTIVE USE

FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS <sup>1</sup>

(ACRE-FEET)

	Use To Date CY 2022	Forecast Use CY 2022	Approved Use <sup>2</sup> CY 2022	Excess to Approval CY 2022
<b>WATER USE SUMMARY</b>				
Arizona	1,399,250	2,124,243	2,078,137	46,106
California	2,820,061	4,577,686	4,349,055	228,631
Nevada	146,641	252,028	252,028	0
<b>States Total <sup>3</sup></b>	<b>4,365,952</b>	<b>6,953,957</b>	<b>6,679,220</b>	<b>274,737</b>
Total Deliveries to Mexico in Satisfaction of Treaty Requirements <sup>4</sup>	990,411	1,454,714	1,454,714	
Creation of Mexico's Recoverable Water Savings <sup>5</sup>	0	30,000	30,000	
Creation of Mexico's Water Reserve <sup>6</sup>	263	263	263	
Delivery of Mexico's Water Reserve <sup>7</sup>	(26,687)	(34,977)	(34,977)	
Total to Mexico in Satisfaction of Treaty Requirements <sup>8</sup>	963,987	1,450,000	1,450,000	
To Mexico in Excess of Treaty <sup>9</sup>	1,936	14,262	25,039	
Water Bypassed Pursuant to IBWC Minute 242 <sup>10</sup>	88,615	136,658	116,633	
<b>Total Lower Basin &amp; Mexico <sup>11</sup></b>	<b>5,446,914</b>	<b>8,559,591</b>	<b>8,275,606</b>	

<sup>1</sup> Incorporates 80 daily reporting stations which may be revised after provisional data reports are distributed by the USGS. Use to date is estimated for users reporting monthly and annually.<sup>2</sup> These values reflect adjusted apportionments. See Adjusted Apportionment calculation on each state page.<sup>3</sup> Includes unmeasured returns based on estimated consumptive use/diversion ratios by user from studies provided by Arizona Department of Water Resources, Colorado River Board of California, and Reclamation.<sup>4</sup> Includes deliveries to Mexico at the Northerly International Boundary (including delivery from Mexico's Water Reserve), Southerly International Boundary, Limitrophe, and DiversionChannel 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.<sup>5</sup> Water deferred by Mexico pursuant to Section IV of IBWC Minute 323 and the Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin dated July 11, 2019. (Mexico's required Binational Water Scarcity Contingency Plan Contribution).<sup>6</sup> Water deferred by Mexico pursuant to Section V of IBWC Minute 323.<sup>7</sup> Delivery from Mexico's Water Reserve pursuant to Section V.E.13 of IBWC Minute 323.<sup>8</sup> 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.<sup>9</sup> Mexico excess forecast is based on the 5-year average for the period 2016-2020.<sup>10</sup> Bypass forecast is based on the average for the period 1990-2020.<sup>11</sup> 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
<b>WATER USER</b>								
Arizona Pumpers	4,199	6,382	6,382	---	6,460	9,818	9,818	0
Lake Mead NRA, AZ - Diversions from Lake Mead	45	77	77	---	45	77	77	0
Lake Mead NRA, AZ - Diversions from Lake Mohave	133	227	227	---	133	227	227	0
Bureau of Reclamation - Davis Dam Project	1	2	2	---	11	16	16	0
Bullhead City	3,959	7,941	8,699	---	6,130	12,386	13,730	-1,344
Mohave Water Conservation District	455	692	692	---	678	1,030	1,030	0
Mohave Valley I.D.D. <sup>1</sup>	7,395	13,427	15,059	---	13,695	24,860	<i>27,879</i>	-3,019
Fort Mojave Indian Reservation, AZ	27,283	41,149	44,550	---	50,524	76,202	82,500	-6,298
Golden Shores Water Conservation District	188	286	286	---	282	429	429	0
Havas National Wildlife Refuge	2,715	3,684	3,564	---	22,624	33,984	41,835	-7,851
EPCOR Water Arizona, Inc. - CSA No. 1	329	550	493	---	530	978	997	-19
Lake Havasu City	4,378	8,408	9,052	---	7,062	13,562	14,600	-1,038
Central Arizona Water Conservation District	693,803	1,031,329	---	---	693,803	1,031,329	---	---
Town of Parker	246	417	424	---	522	907	917	-10
EPCOR Water Arizona, Inc. - CSA No. 2 (formerly Brooke Water, LLC)	167	306	324	---	252	460	486	-26
Colorado River Indian Reservation, AZ	193,747	260,136	227,841	---	344,948	527,574	508,619	<b>18,955</b>
Ehrenberg Improvement District	166	252	252	---	232	352	352	0
Arizona State Land Department	2,951	4,485	4,485	---	4,540	6,900	6,900	0
Cibola Valley I.D.D.	4,055	6,415	5,868	---	5,672	8,971	8,205	<b>766</b>
Red River Land Co.	176	236	214	---	246	330	300	<b>30</b>
Western Water, LLC	91	253	379	---	128	355	530	-175
Hopi Tribe	2,507	3,656	3,061	---	3,508	5,113	4,278	<b>835</b>
GSC Farms, LLC	1,563	2,452	2,084	---	2,186	3,430	2,913	<b>517</b>
Arizona Game & Fish	1,411	2,145	2,031	---	1,974	2,999	2,838	<b>161</b>
Cibola National Wildlife Refuge	8,760	14,264	14,264	0	14,129	23,005	23,005	0
Imperial National Wildlife Refuge	2,251	3,799	3,799	0	3,631	6,128	6,128	0
BLM Permittees (Parker Dam to Imperial Dam)	821	1,247	1,247	0	1,263	1,919	1,919	0
Cha Cha, LLC	763	1,321	1,365	---	1,173	2,031	2,100	-69
Beattie Farms Southwest	470	718	718	---	723	1,109	1,110	-1
Yuma Proving Ground	259	466	524	---	259	466	524	-58
Gila Monster Farm	2,537	3,985	4,888	---	4,427	6,976	8,500	-1,524
Wellton-Mohawk Irrigation and Drainage District	163,484	258,996	278,000	-19,004	234,662	394,920	424,350	-29,430
BLM Permittees (Below Imperial Dam)	72	109	109	0	111	168	168	0
City of Yuma	9,367	15,884	15,833	<b>51</b>	15,284	26,976	27,500	-524
U.S. Marine Corps Air Station Yuma	688	1,210	1,300	---	688	1,210	1,300	-90
Union Pacific Railroad	15	27	29	---	28	48	48	0
University of Arizona	450	800	852	---	450	800	852	-52
Yuma Union High School District	73	140	150	---	97	187	200	-13
Desert Lawn Memorial	17	26	26	---	24	37	37	0
North Gila Valley Irrigation District	6,346	9,170	10,674	---	25,767	40,996	43,500	-2,504
Yuma Irrigation District	22,959	37,177	39,569	---	40,973	68,089	73,000	-4,911
Yuma Mesa Irrigation and Drainage District	56,696	102,165	110,859	---	122,813	220,612	244,280	-23,668
Unit B Irrigation and Drainage District	8,188	13,655	13,129	---	16,034	27,611	29,400	-1,789
Fort Yuma Indian Reservation	1,276	1,940	1,940	---	1,963	2,983	2,983	0
Yuma County Water Users' Association	161,363	261,039	275,560	---	219,488	358,114	367,400	-9,286
Cocopah Indian Reservation	304	1,003	1,725	---	408	1,482	2,650	-1,168
Reclamation - Yuma Area Office	128	195	195	---	128	195	195	0
<b>Total Arizona</b>	<b>1,399,250</b>	<b>2,124,243</b>	<b>2,143,977</b>		<b>1,870,708</b>	<b>2,948,351</b>	<b>3,021,801</b>	
Central Arizona Project (CAP)	693,803	1,031,329				1,031,329		
All Others	705,447	1,092,914	1,112,801			1,917,022	1,990,625	
Yuma Mesa Division, Gila Project	86,001	148,512	161,102	-12,590		329,697		
Total 242 Well Field Pumping <sup>2</sup>	31,289	47,274	56,129					

Footnotes: See next page.



## ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Arizona Basic Apportionment	2,800,000
Reduction for Tier 1 Shortage <sup>3</sup>	(320,000)
Arizona DCP Contribution <sup>4,5</sup>	(192,000)
Creation of Extraordinary Conservation ICS - CRIT (Estimated) <sup>5,6</sup>	(4,685)
Creation of Extraordinary Conservation ICS - GRIC (Estimated) <sup>5,7</sup>	(78,565)
System Conservation Water - Pilot System Conservation Program <sup>8</sup>	(500)
System Conservation Water - CRIT <sup>9</sup>	(50,000)
System Conservation Water - CAP <sup>10</sup>	(35,506)
System Conservation Water - FMYN <sup>11,12</sup>	(13,933)
System Conservation Water - GRIC <sup>11,13</sup>	(50,937)
System Conservation Water - MVIDD <sup>11,14</sup>	(9,592)
System Conservation Water - Reclamation <sup>11,15</sup>	(16,145)
Delivery of ICS (CAWCD)	50,000
<b>Total State Adjusted Apportionment</b>	<b>2,078,137</b>
<b>Excess to Total State Adjusted Apportionment</b>	<b>46,106</b>
<b>Estimated Allowable Use for CAP</b>	<b>1,019,162</b>

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

<sup>2</sup> In accordance with the Colorado River Water Conservation Letter Agreement 16-XX-30-W0603, Revision No. 1 (Revised Letter Agreement) between Reclamation and the Central Arizona Water Conservation District (CAWCD), pumping above the Historical Average Baseline (31,129 AF), up to 32,000 AF per year, will remain in Lake Mead as Colorado River System water.

<sup>3</sup> 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.

<sup>4</sup> In accordance with Sections III.B.1.a and III.E.4 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.

<sup>5</sup> When combined with the approved EC ICS creation amounts of other ICS Creators in the state of Arizona, the total amount of EC ICS approved for creation in the state of Arizona in 2022 is 183,250 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.

<sup>6</sup> The Colorado River Indian Tribes (CRIT) has an approved ICS Plan for the creation of up to 4,685 AF of EC ICS in 2022. The actual amount of EC ICS created by CRIT will be based on final accounting and verification.

<sup>7</sup> CAP water being conserved by the Gila River Indian Community (GRIC) in 2022 to create EC ICS. The actual amount of EC ICS created by GRIC will be based on final accounting and verification.

<sup>8</sup> 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.

<sup>9</sup> 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.

<sup>10</sup> 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).

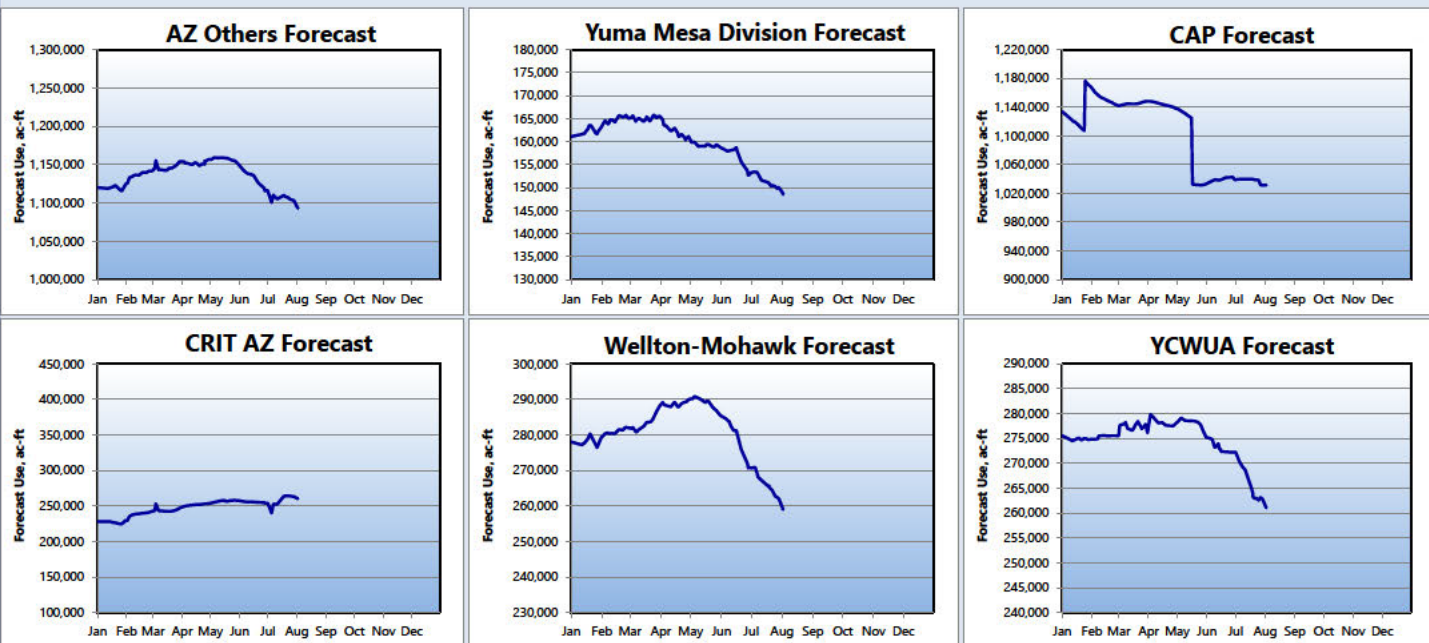
<sup>11</sup> In accordance with the applicable system conservation agreements and Section 3.b of the LB DCP Agreement, the Bureau of Reclamation intends to apply this water towards the Secretary of the Interior's commitment to create or conserve 100,000 AF per annum or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the Lower Basin.

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

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

<sup>14</sup> 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.

<sup>15</sup> System Conservation Water being created by additional pumping from the 242 Well Field Expansion pursuant to the Revised Letter Agreement.



NOTES: Click on Arizona 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/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.

## 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 \(Water Accounting Reports\)](#)

	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	Excess to Approved Diversion CY 2022	Approved Diversion CY 2022
<b>WATER USER</b>								
Fort Mojave Indian Reservation, CA	4,516	6,661	8,996	---	8,393	12,380	16,720	-4,340
PPR No. 30 (Stephenson)	15	23	23	---	28	42	42	0
PPR No. 38 (Andrade)	15	23	23	---	28	42	42	0
City of Needles (includes LCWSP use)	738	1,405	1,605	-200	1,256	2,194	2,261	-67
Chemehuevi Indian Reservation	120	183	183	---	7,462	11,340	11,340	0
The Metropolitan Water District of Southern California	615,490	1,114,022	---	---	617,206	1,116,787	---	---
Colorado River Indian Reservation, CA	3299	5,014	5,014	---	5,466	8,307	8,307	0
Palo Verde Irrigation District	243,429	378,272	420,696	---	507,177	824,951	857,000	-32,049
Lake Enterprises	1	1	1	---	1	1	1	0
Yuma Project Reservation Division	27,792	44,154	49,577	---	53,861	89,582	98,635	-9,053
Yuma Project Reservation Division - Bard Unit	---	---	---	---	23,949	42,462	51,500	-9,038
Yuma Project Reservation Division - Indian Unit	---	---	---	---	29,912	47,121	47,135	-14
Fort Yuma Indian Reservation - Ranch 5 (Surface Delivery)	622	1,098	1,194	---	1,126	1,987	2,160	-173
Fort Yuma Indian Reservation - Other Ranches (Pumpers)	749	1,139	1,139	---	1,355	2,059	2,059	0
Yuma Island Pumpers	1,072	1,629	1,629	---	1,939	2,947	2,947	0
Imperial Irrigation District <sup>1</sup>	1,716,268	2,664,268	2,620,300	43,968	1,754,608	2,760,371	2,719,536	---
Coachella Valley Water District	205,525	359,170	384,000	-24,830	216,917	380,264	399,950	---
Other LCWSP Contractors	370	563	563	---	597	907	907	0
City of Winterhaven	40	61	61	---	58	88	88	0
<b>Total California</b>	<b>2,820,061</b>	<b>4,577,686</b>	<b>4,608,482</b>		<b>3,177,478</b>	<b>5,214,249</b>	<b>5,238,174</b>	

## CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

California Basic Apportionment	4,400,000
System Conservation Water - Pilot System Conservation Program <sup>2</sup>	(145)
System Conservation Water - PVID Following Program <sup>3</sup>	(50,800)
Creation of Extraordinary Conservation ICS by IID - Stored in Lake Mead (Estimated) <sup>4</sup>	0
Creation of Extraordinary Conservation ICS by MWD (Estimated) <sup>5</sup>	0
<b>Total State Adjusted Apportionment</b>	<b>4,349,055</b>
Excess to Total State Adjusted Apportionment	228,631

## Estimated Allowable Use for MWD

929,359

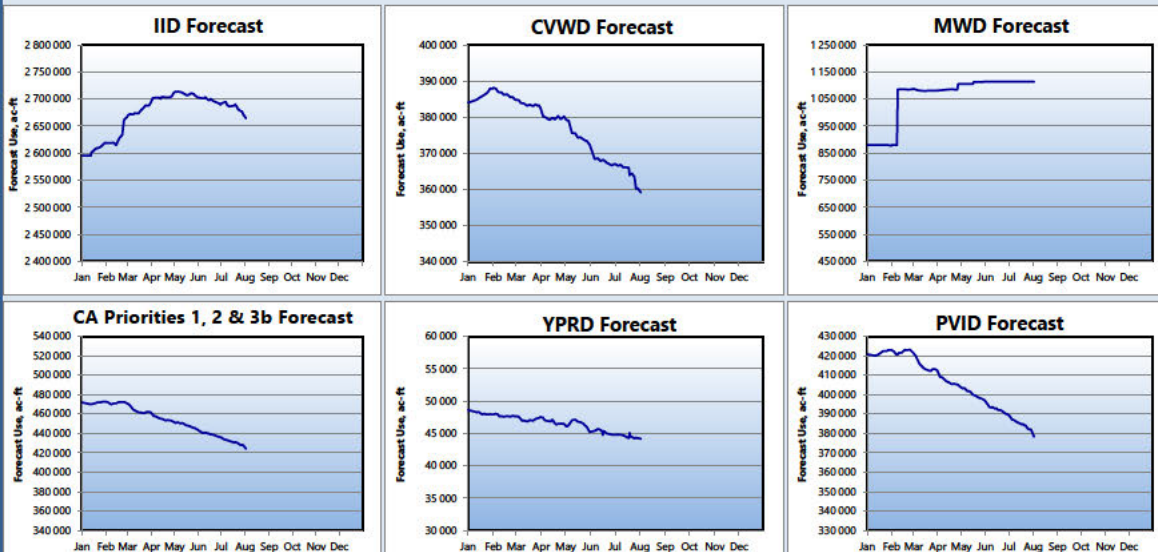
<sup>1</sup> As shown here, IID's Approved Diversion and Estimated Use values reflect the maximum amount of Colorado River water available to IID in 2022. Note: This forecast may be updated to reflect up to 25,000 AF of water conserved and stored by IID pursuant to the IID-MWD Settlement and Release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

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

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

<sup>4</sup> 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 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.

<sup>5</sup> 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	Use	Use	Estimated	To Date	Diversion	Approved
	CY 2022	CY 2022	CY 2022	CY 2022	CY 2022	CY 2022	Diversion
Robert B. Griffith Water Project (SNWS)	267,969	454,648	---	---	267,969	454,648	---
Lake Mead NRA, NV - Diversions from Lake Mead	350	1,051	1,500	---	350	1,051	-449
Lake Mead NRA, NV - Diversions from Lake Mohave	127	356	500	---	127	356	-144
Basic Management, Inc.	2,687	6,331	8,208	---	2,687	6,331	-1,877
City of Henderson (BMI Delivery)	7,410	12,756	15,878	---	7,410	12,756	-3,122
Nevada Department of Wildlife	1	6	12	-6	140	573	---
Pacific Coast Building Products, Inc.	523	898	928	---	523	898	-30
Boulder Canyon Project	115	175	175	---	197	300	0
Big Bend Water District	1,284	3,427	4,765	---	2,643	6,952	-3,048
Fort Mojave Indian Tribe	1,670	3,194	4,623	---	2,495	4,770	-2,130
Las Vegas Wash Return Flows	-135,495	-230,814	-228,466	---			
<b>Total Nevada</b>	<b>146,641</b>	<b>252,028</b>	<b>260,000</b>	<b>-6</b>	<b>284,541</b>	<b>488,635</b>	<b>-10,800</b>
Southern Nevada Water System (SNWS)	132,474	223,834				454,648	
All Others	14,167	28,194				33,987	
Nevada Uses Above Hoover	143,687	245,407				476,913	
Nevada Uses Below Hoover	2,954	6,621				11,722	

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

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

## NEVADA ADJUSTED APPORTIONMENT CALCULATION

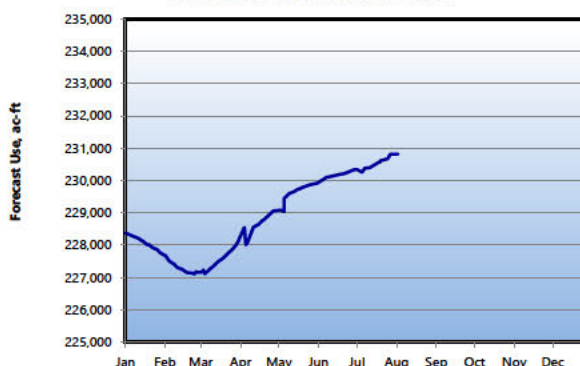
Nevada Basic Apportionment	300,000
Reduction for Tier 1 Shortage <sup>2</sup>	(13,000)
Creation of Extraordinary Conservation ICS - SNWA (Estimated) <sup>3</sup>	(34,972)
<b>Total State Adjusted Apportionment</b>	<b>252,028</b>
Excess to Total State Adjusted Apportionment	0

<sup>1</sup> 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.<sup>2</sup> In accordance with Section XLG.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.<sup>3</sup> 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 XLG.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 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 LBOps.

Robert B. Griffith Forecast



LV Wash Return Forecast



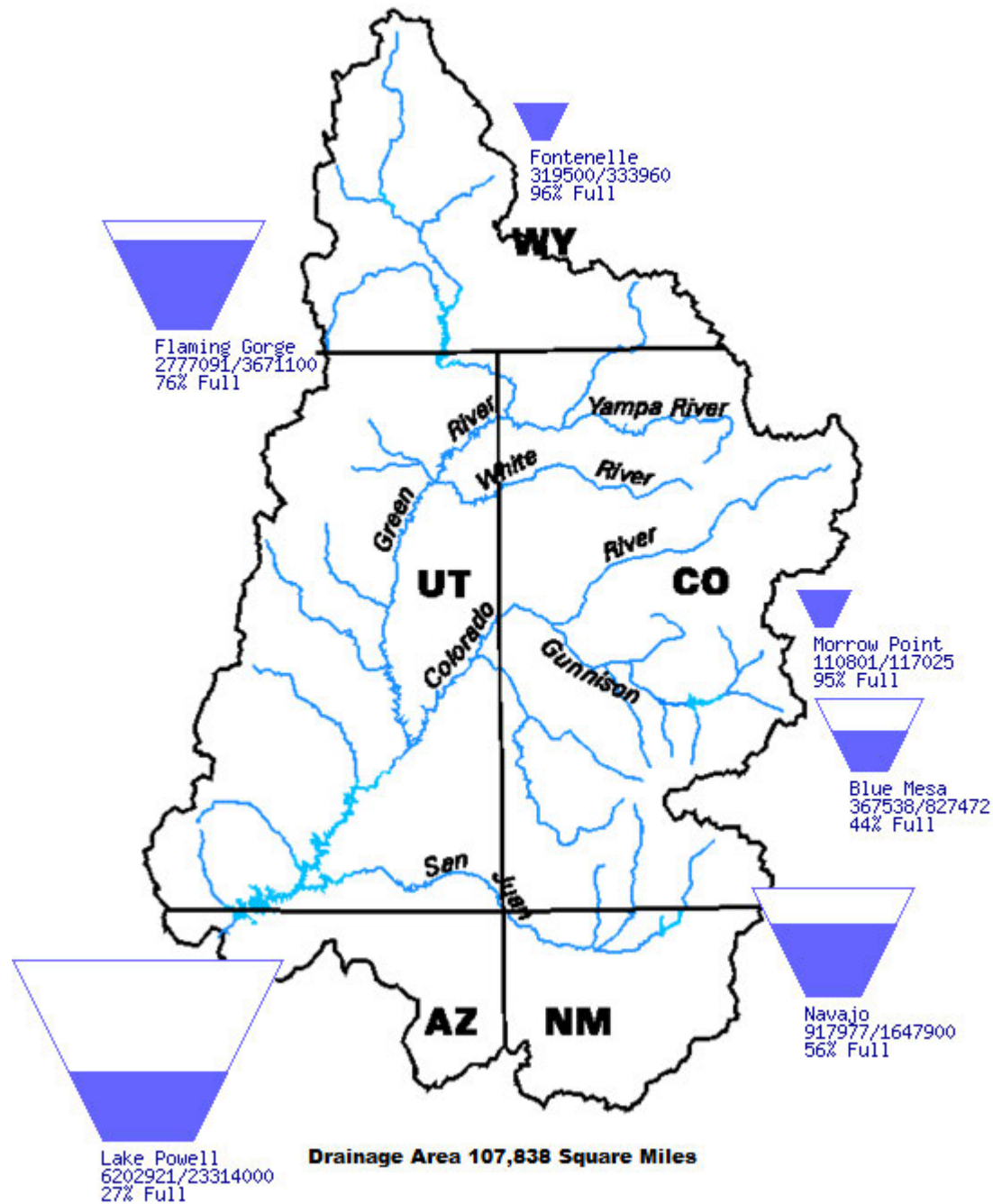


# Upper Colorado Region Water Resources Group

## River Basin Tea-Cup Diagrams

Data Current as of:  
08/02/2022

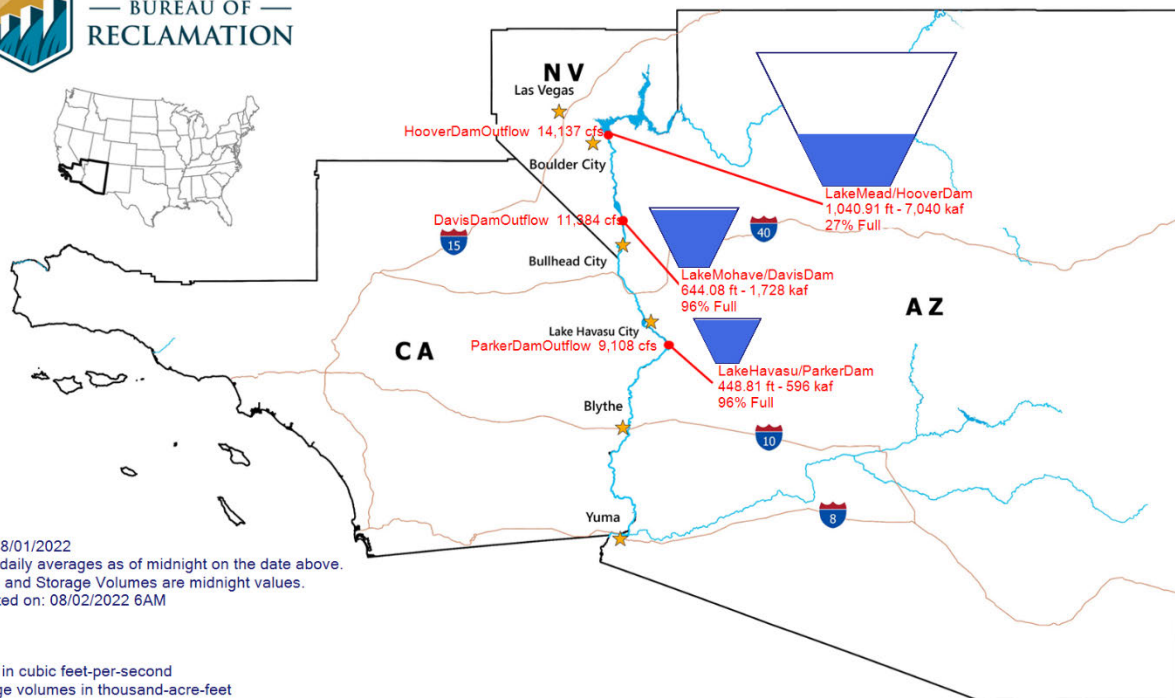
### Upper Colorado River Drainage Basin



# Lower Colorado River Teacup Diagram



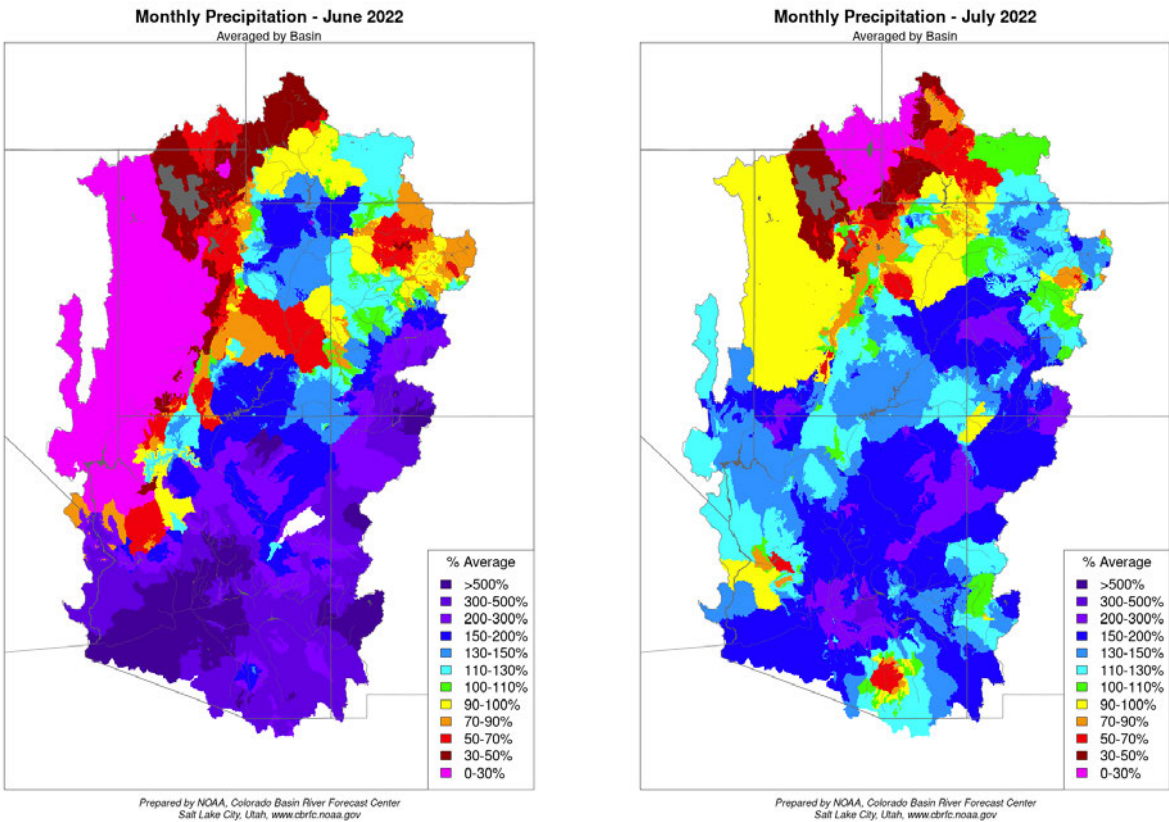
BUREAU OF  
RECLAMATION



Data for: 08/01/2022  
Flows are daily averages as of midnight on the date above.  
Elevations and Storage Volumes are midnight values.  
Last updated on: 08/02/2022 6AM

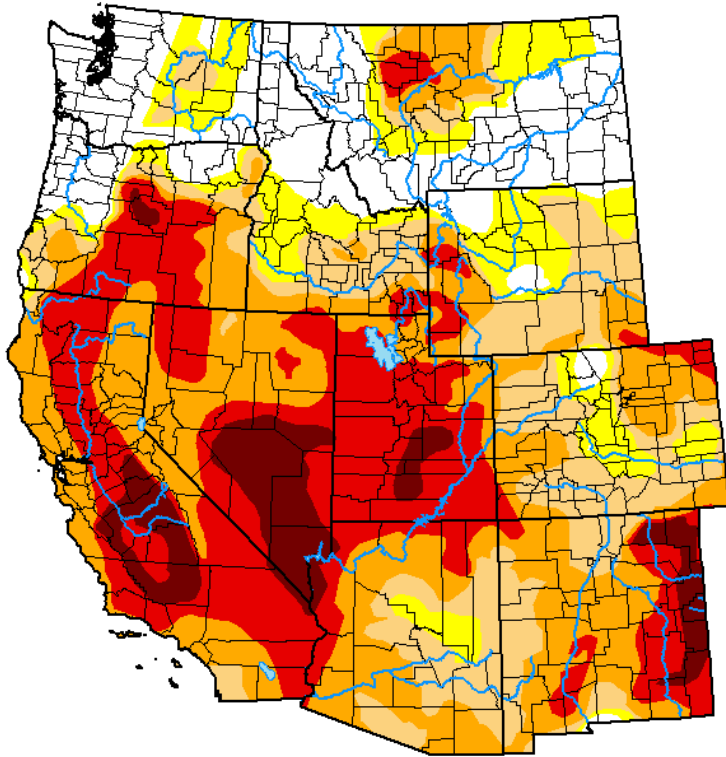
LEGEND:  
cfs: Flows in cubic feet-per-second  
kaf: Storage volumes in thousand-acre-feet  
ft: Elevations in feet above mean-sea-level

NOAA National Weather Service Monthly Precipitation Map June and July 2022



# USDA United States Drought Monitor Map

## U.S. Drought Monitor West



**July 26, 2022**

(Released Thursday, Jul. 28, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	16.72	83.28	72.69	55.74	29.12	6.51
<b>Last Week</b> 07-19-2022	16.73	83.27	73.44	57.69	30.16	6.68
<b>3 Months Ago</b> 04-26-2022	5.08	94.92	91.28	74.95	32.80	3.84
<b>Start of Calendar Year</b> 01-04-2022	3.68	96.32	89.29	64.90	23.85	3.94
<b>Start of Water Year</b> 09-28-2021	2.21	97.79	89.60	75.38	52.46	18.40
<b>One Year Ago</b> 07-27-2021	5.90	94.10	90.29	79.44	58.72	21.80

### 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>

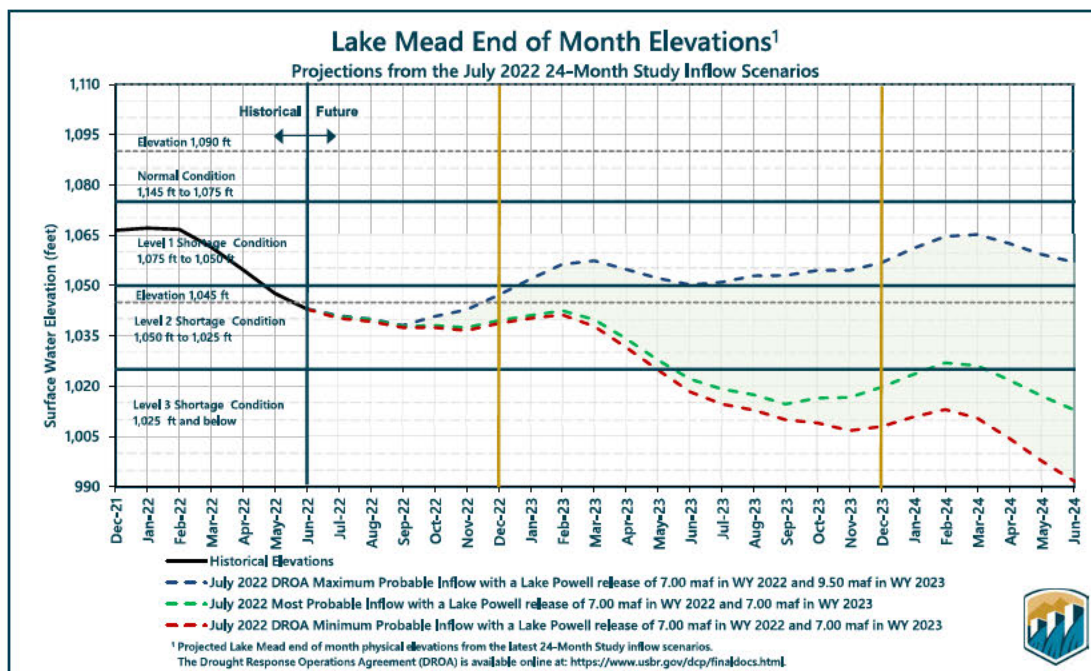
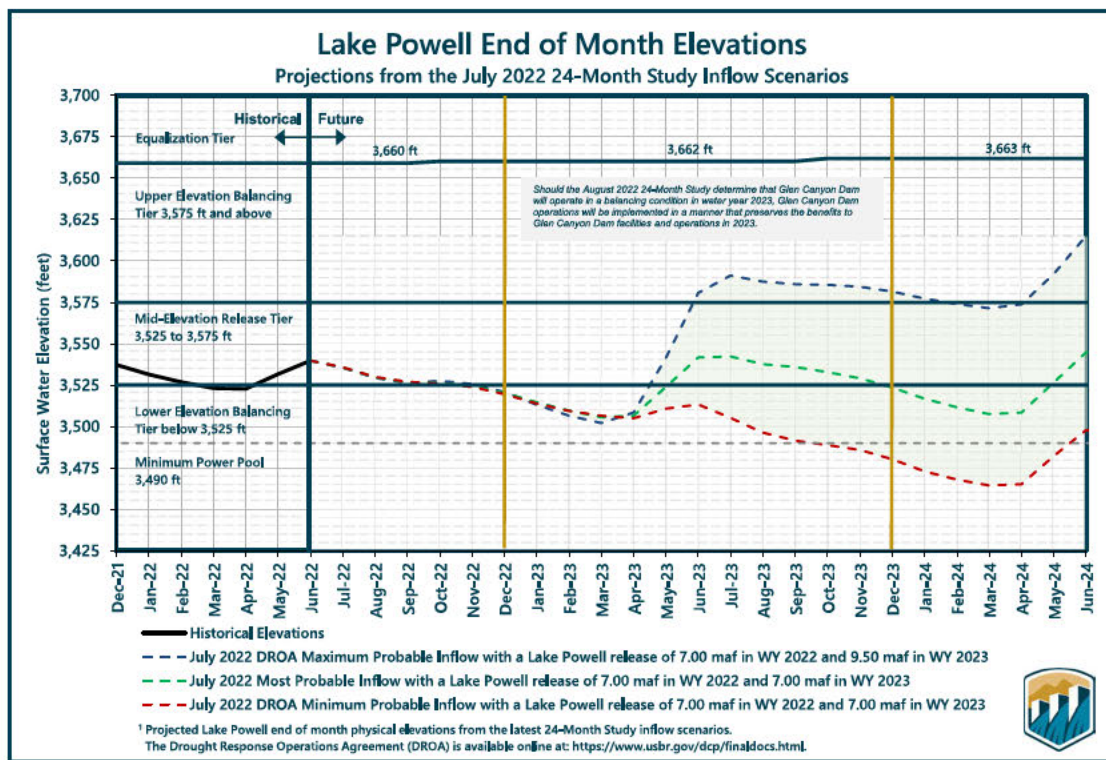
### Author:

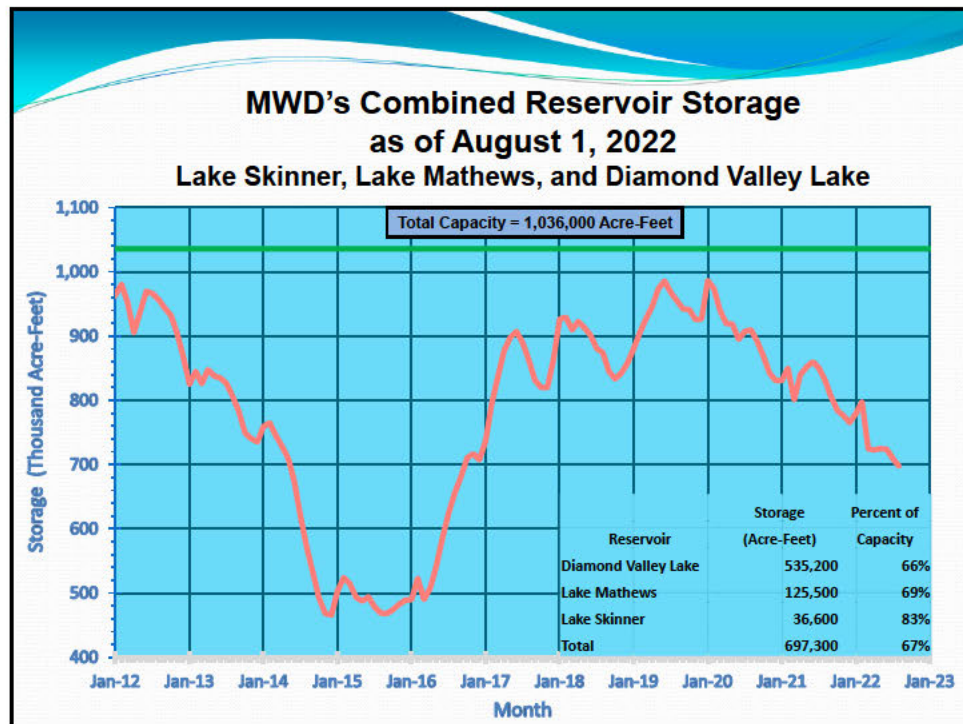
Curtis Riganti  
National Drought Mitigation Center



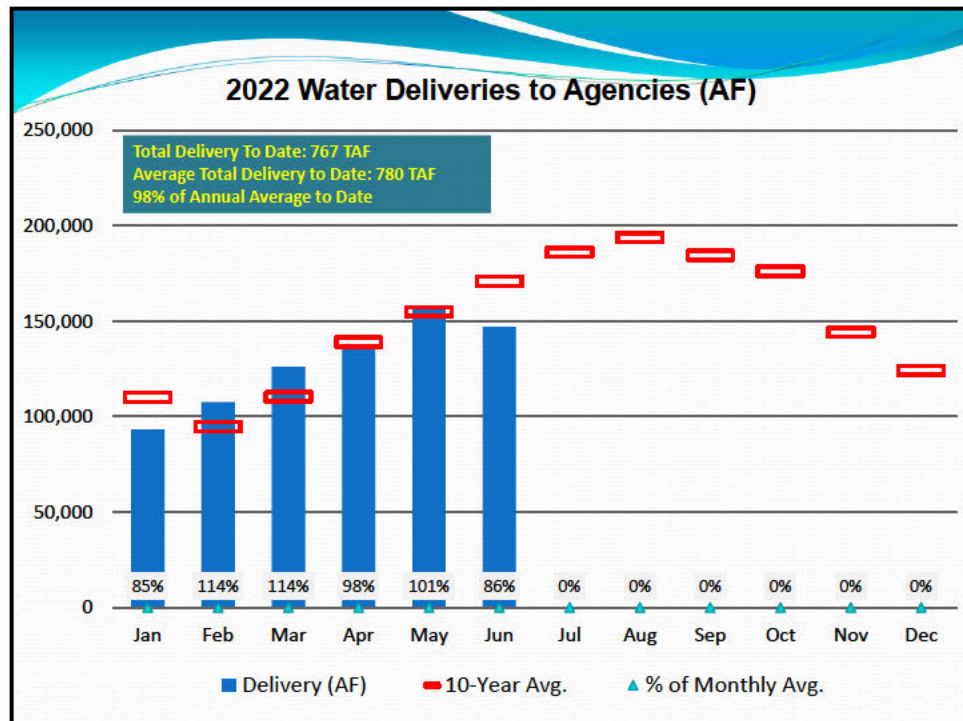
[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)







1



2