

March 30, 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, April 13, 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 <a href="mailto:crb@crb.ca.gov">crb@crb.ca.gov</a> 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 from 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 <a href="mailto:crb@crb.ca.gov">crb@crb.ca.gov</a>.

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 <u>www.crb.ca.gov</u>.

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, April 13, 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<sup>1</sup> (Limited to 5 minutes)

#### 3. Administration

- a. Consideration and approval of March 9, 2022, Board meeting Minutes (Action)
- b. Consideration and approval of Board Resolution Posthumously Honoring Mr. Henry (Hank) Kuiper, Colorado River Board Member (**Action**)
- 4. Colorado River Basin and Local Water Supply and Operations Reports
- 5. Colorado River Basin Programs Staff Reports
- 6. Executive Session<sup>2</sup>
- 7. Other Business
- 8. Future Agenda Items/Announcements

**Next Scheduled Board Meeting:** 

May 11, 2022 10:00 a.m., Pacific Sheraton Ontario Airport Hotel, Orchid Room 429 North Vineyard Avenue Ontario, CA 91764

<sup>&</sup>lt;sup>1</sup> In accordance with California Government Code, Section 54954.3(a).

<sup>&</sup>lt;sup>2</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, March 9, 2022

A meeting of the Colorado River Board of California (Board) was held virtually on Wednesday, March 9, 2022, using the Zoom Webinar meeting platform, pursuant to Governor Newsom's Executive Order N-1-22 issued on January 5, 2022.

Board Members and Alternates Present:

David De Jesus (MWD Alternate) Castulo Estrada (CVWD Alternate) Dana B. Fisher, Jr. (PVID) John B. Hamby (IID) James Hanks (IID Alternate) Jeanine Jones (DWR Designee) Jim Madaffer (SDCWA) 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:

Christopher Hayes (DFW Designee)	Delon Kwan (LADWP Alternate)
Henry Kuiper (Public Member)	Mark Watton (SDCWA Alternate)

Others Present:

Steve Abbott	Rich Juricich
Justina Arce	Laura Lamdin
Jim Barrett	Tom Levy
Bert Bell	Henry Martinez
Robert Cheng	Dylan Mohamed
Gary Croucher	Pedro Nava
Dennis Davis	Jessica Neuwerth
Dan Denham	Jessica Rangel
JR Echard	Shana Rapoport
Melissa Baum-Haley	David Rheinheimer
Chris Harris	Kelly Rodgers
Bill Hasencamp	Shanti Rosset
Michael Hughes	Tom Ryan
Ned Hyduke	Roberta Saligumba

Alexi Schnell Tina Shields Darren Simon AJ Slagan Gary Tavetian Angela Tomayko Sara Tucker Margaret Vick Cherie Watte Jay Weiner Jerry Zimmerman

#### CALL TO ORDER

Chairman Nelson announced the presence of a quorum and called the meeting to order at 10:00 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 February 9, 2022, meeting minutes. Mr. Peterson moved that the minutes be approved, seconded by Mr. Madaffer. By roll-call vote, the minutes were unanimously approved.

#### <u>Consideration of Application for Water Subcontract from the Lower Colorado Water Supply</u> <u>Project (Action)</u>

Mr. Juricich summarized a proposed Board Resolution 2022-1 that recommends a subcontract for Lower Colorado Water Supply Project (Project) water in Imperial County, California be offered to the applicant and directs the executive director to forward the application to Reclamation. Ms. Laurie Marie Estes 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. The Board approved and adopted Resolution 2022-1 during its meeting on March 9, 2022.

Chairman Nelson asked for a motion to approve the resolution on the application for the

Lower Colorado River Water Supply Project. Mr. Pettijohn moved that the resolution be approved, seconded by Mr. Madaffer. By roll-call vote, the resolution was unanimously approved.

#### **COLORADO RIVER BASIN WATER REPORTS**

#### **Colorado River Basin Report**

Mr. Juricich reported that as of March 7<sup>th</sup>, the water level at Lake Powell was 3,526.01 feet with 5.99 million-acre feet (MAF) of storage, or 25% of capacity. The water level at Lake Mead was 1,066.03 feet with 8.89 MAF of storage, or 34% of capacity. The total system storage was 21.37 MAF, or 45% of capacity, which is 5.45 MAF less than system storage at this time last year.

Mr. Juricich reported that as of March 2<sup>nd</sup>, for Water Year-2022 (WY-2022), the observed February inflow to Lake Powell was 0.22 MAF, or 59% of normal. The March inflow forecast to Lake Powell is 0.30 MAF, or 50% of normal. The forecasted unregulated inflow into Lake Powell for WY-2022 is 6.58 MAF, or 69% of normal and the WY-2022 forecasted April to July inflow to Lake Powell is 4.4 MAF, or 69% of normal. Mr. Juricich reported that overall precipitation conditions in the Upper Colorado River Basin were 100% of normal and the current Basin snowpack is 93% of normal.

Mr. Juricich reported on the Colorado Basin River Forecast Center (CBRFC) March 1<sup>st</sup> Water Supply forecasts for the April to July runoff period. He stated that across the Upper Basin the forecasts ranged from 45% to 75% in the Upper Green Basin, 70% to 100% in the Upper Colorado Basin and 69% of normal for Lake Powell River Basin. He noted precipitation conditions in the Upper Green River Basin have been dry for the last few months.

Mr. Juricich reported on the February 24-Month Study projections for reservoir elevations for Lakes Powell and Mead. For Lake Powell, the most probable release from Glen Canyon Dam for 2022 and 2023 is 7.48 MAF and 7.72 MAF, noting however, that 7.0 MAF release may be more likely. Mr. Juricich reported that Lake Mead's elevation at the end of the calendar year is projected to be close to 1,050 feet.

Mr. Juricich reported that Reclamation released an updated version of the five-year projections for reservoir system conditions for Lakes Powell and Mead. He noted that in 2023, about half of the traces are in the Lower Elevation Balancing Tier. Mr. Juricich explained that

Reclamation has switched the methodology for developing the five-year projections from the Colorado River System Simulation (CRSS) to the Colorado River Midterm Model System (CRMMS), noting that Board staff will present an overview of the methodology change at a future meeting. He reported that Reclamation performed analysis that showed that CRMMS more accurately reflected the near-term conditions over the next five years or so. Mr. Juricich stated that CRSS will still be used for long-term projections for planning purposes.

Chairman Nelson asked for more information about the tier determination of the midelevation release tier. Mr. Harris explained that if the August 24-Month Study report for January 1<sup>st</sup> projection for Powell's elevation is below 3,525 feet, Reclamation will compare the contents between Lakes Powell and Mead and set the annual release from Glen Canyon Dam. He added that the release would be no less than 7.0 MAF and no greater than 9 MAF.

Mr. Juricich reported that the five-year projections for Lake Mead show a Level 1 shortage condition for the next five years, with the increased probability of reaching a Level II shortage in 2024 and a Level III shortage in 2025 and 2026.

Mr. Harris reported on the status of Upper Basin States and the Department of Interior (DOI) Water Year-2022 DROA operations. He explained that the parties are trying to better understand how the remainder of the water year finishes out with respect to April to July runoff. He noted that they are also working on understanding the role side inflows between Glen Canyon Dam and Lake Mead will play. Mr. Harris explained that the Upper Basin States and DOI are also trying to figure out the level of drought operations will need to be implemented. He stated that it is very likely that there will be drought operations pursuant to the 2019 Upper Basin Drought Contingency Plan (UB DCP) and Drought Operations Agreement (DROA). He stated that the Upper Basin States and the Upper Colorado River Commission are trying to determine the size, and volume of water that will need to be released from Flaming Gorge reservoir. He stated that there will be a shift in the timing of annual releases out of Glen Canyon Dam for the remainder of 2022 in order to withhold 350,000 AF of water from January to April when inflow to the reservoir is low. He noted that Reclamation is not changing the volume of the annual release but rather, the timing.

Mr. Harris reported that the seven Basin States are working to develop additional measures that can be implemented in 2023, in conjunction with the 500-plus plan to protect the critical elevations in Lakes Powell and Mead. He added that they want to avoid taking a precipitous action in one reservoir that may damage another reservoir. Chairman Nelson added that there is a great level of concern from the Upper Basin and Lower Basin principals about the declining water supply conditions in reservoir system. Board member Peterson inquired about

Lake Powell's operations at or below the minimum power pool of 3,490 feet. Mr. Harris explained that at elevation 3,490 feet Reclamation would have to shift its primary movement of water from Powell downstream onto the river outlet works. He stated he didn't believe Reclamation could release a full 7.48 MAF release but could probably release close to 7 MAF. He added that there are no low head turbines at Glen Canyon Dam in contrast to Hoover Dam and it is anticipated that energy production capability will be impacted, adding that power can't be generated twenty feet below 3,490 feet. Mr. Peterson noted that a similar situation occurred at Lake Shasta reservoir and the outlets had to be reconfigured to remove cold water. Mr. Harris responded that reconfiguration of the outlets in Lake Powell is not an option. He added that Reclamation has looked at the feasibility of constructing additional turbines on the river outlet works but it would be a costly multi-year effort. Responding to Chairman Nelson about the discharge flow allowed on the river outlet works, Mr. Harris stated that the valves can release 15,000 cubic feet per second.

Mr. Juricich reported that through February 25<sup>th</sup>, the Brock and Senator Wash regulating reservoirs captured 15,382 AF and 12,333 AF, respectively. He also reported that the excess deliveries to Mexico were 553 AF, compared to 6,160 AF this time last year. Finally, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 27,394 AF, through March 5, 2022.

#### **State and Local Report**

Ms. Jones, representing the California Department of Water Resources (DWR), reported that precipitation conditions in December were over 150 percent of average at the end of month and conditions have declined greatly since then. Ms. Jones reported that statewide reservoir storage is at 72% of average. She added that snowpack is slightly above 50% of the April 1<sup>st</sup> average throughout the State. As of March 5<sup>th</sup>, statewide precipitation conditions were 80% of average. She added that precipitation conditions in Southern California have been drier than Northern California. She stated that temperatures in WY-2022 were largely above average in Southern California and inland Colorado River hydrologic regions.

Ms. Jones stated that the wet season for the state is coming to a close, adding that March is usually the last wet month. She presented a graphic depicting experimental forecast of atmospheric rivers making landfall, noting that there is a probability of precipitation coming to the State within the next week. She stated that the climatological maximum period for atmospheric river storms is at the end of December and early January. Ms. Jones stated that we are at the end of the period where large storms provide significant amounts of precipitation. Ms. Jones reported that April 1<sup>st</sup> is the date that is used to measure the maximum period of snowpack accumulation.

Board member Peterson, representing The Metropolitan Water District of Southern California (MWD) reported that as of March 1<sup>st</sup>, total reservoir storage is 70% of capacity. He stated that the shutdown of the Colorado River aqueduct is complete and will ramp up to an 8-pump flow through May. He stated that MWD's diversion target is 1.087,00 AF. He added that on March 3<sup>rd</sup>, MWD converted 103,000 AF of flow to storage during the shutdown. Mr. Peterson reported that the target diversion for the Desert Water Agency and Coachella Valley Water district is 15,000 AF.

Vice Chairman Pettijohn, representing the Los Angeles Department of Water and Power (LADWP), reported that LADWP finished the March 1<sup>st</sup> snow course survey, which showed that every course lost snow water content. He added that the snow content is 63% of the April 1<sup>st</sup> normal, noting that it has been dry since December. Mr. Pettijohn stated that it has been so dry over the last few years that it is hard to know what the runoff forecast will be and LADWP is not predicting any supplies from the LA Aqueduct at this time. He stated that the SWP allocation will likely go down from 15% and it is possible that the city of LA and some other SWP exclusive areas will operate under a health and safety allocation from the State to manage through the water year. He added that LADWP is in a difficult situation, one that they have not found themselves in before and that it is shifting water across its system accordingly. He stated that 5,000 AF has been shifted through the shift program that MWD implemented. He added that MWD has 2.6 MAF in storage and can't get the water to LADWP.

#### STATUS OF COLORADO RIVER BASIN PROGRAMS

#### Colorado River Basin Salinity Control Program Implementation

Mr. Juricich discussed activities of the Salinity Control Forum Work Group hybrid inperson / virtual meeting held on February 15-16 with in-person participation at the Arizona Department of Water Resources offices in Phoenix. Key topics under discussion included updates from Reclamation, the U.S. Geological Survey, and Natural Resources Conservation Service on program funding, research, and implementation.

Mr. Juricich reported that Reclamation provided an update on the status of the Paradox Valley Unity (PVU) salinity control project, located in Montrose County, Colorado. 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. Of special note for water users in the Basin, Reclamation reported it is developing an Injection Test Plan for PVU that would restart operations subject to peer review and senior Reclamation and Department of Interior approval. Mr. Juricich reported that Board staff worked with the CRB agencies to draft a letter to Reclamation supporting a restart of the PVU facility and has shared the letter with the States of Arizona and Nevada.

Mr. Juricich reported that the U.S. Geological Survey (USGS) reported the results of a pump test conducted at the Pah Tempe Springs Geothermal area located in Washington County, Utah. Pah Tempe Springs, also known as Dixie Hot Springs or La Verkin Springs, are located along the Virgin River at the mouth of Timpoweap Canyon in Washington County, Utah. The springs are recognized as a substantial localized source of dissolved solids (salt) discharging to the Virgin River, which is a tributary to the Colorado River at Lake Mead. The purpose of the pump test is to better understand the aquifer properties thus allowing USGS to model pumping requirements to capture the brine presently discharging to the Virgin River.

Board Member Peterson asked if the Salinity Program was applying for federal stimulus money. Mr. Harris responded that conversations on funding are occurring at the Work Group and Forum and that it will likely require additional federal legislation. Chairman Nelson stated that Paradox is the greatest opportunity for salt control in the basin. Mr. Harris responded that there is also potential for salinity control at Pah Tempe Springs. Mr. Juricich reported that the Pah Tempe Springs also has interest by a local agency in Washington County. Mr. Madaffer stated his concern that some of the other basin states are not supporting the PVU project, and that California should pull out all stops to get the PVU restarted.

Mr. Juricich also reported on a study by the USGS looking at potential for salinity impacts in the Spanish Valley near Moab, Utah. The USGS and state of Utah are monitoring the area and looking for additional partnerships.

#### Status of the Glen Canyon Dam Adaptive Management Program

Ms. Neuwerth reported that the Glen Canyon Dam Adaptive Management Program's (GCDAMP) Adaptive Management Work Group (AMWG) met virtually on February 9 and 10.

Ms. Neuwerth reported that much of the meeting was an abridged version of the previous month's Annual Reporting Meeting.

Ms. Neuwerth reported that the AMWG is grappling with potential biological effects of low reservoir elevations behind Glen Canyon Dam. As the reservoir declines, there is potential for warmer water to flow through the intakes as well as entrainment of non-native fish. The Glen Canyon/Grand Canyon area is one of the best spots in the entire Colorado River for native fish and both the natives and some of the non-natives love the warm water. The AMWG is considering options for mitigation.

Ms. Neuwerth reported that Reclamation is interested in using some of its infrastructure funding to do a feasibility study on adding power generation to the bypass tubes at Glen Canyon Dam. Installing hydropower is expensive and hydropower generation would reduce the capacity of the bypass tubes. Utilizing the bypass tubes could reduce the risks from warmer water and non-natives passing through Glen Canyon Dam as water released would be from lower levels in the reservoir. Ms. Neuwerth reported that it will be at least a year before study results are available.

Ms. Neuwerth reported on potential experiments for 2022. The program is currently in the accounting period for a spring high-flow experiment (HFE). Currently, there is insufficient sediment input to trigger a Spring HFE. The GCDAMP is also considering a "bug flows" experiment which are low weekend steady flows to help the food base in Glen and Grand Canyons. There is also the possibility for a fall HFE depending on the monsoon season.

Ms. Neuwerth reported that the Technical Work Group (TWG) will meet April 12 and 13.

#### Status of the Lower Colorado River Multi-Species Conservation Program

Ms. Neuwerth reported that the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) held its annual financial reporting meeting on February 17.

Ms. Neuwerth reported that the FY 21 budget for the LCR MSCP was \$26.5 million and actual expenditures were \$23.1 million. The program has some lingering impacts from the pandemic that caused delay in planting and habitat creation schedules. Research being done through the program is declining as most of the critical research questions have been answered. The LCR MSCP is currently focusing on building and maintaining habitats.

Ms. Neuwerth reported that the budget for the program is set at in 2003 dollars; thus, inflation can have a big effect on program funding. Program funding is expected to increase a bit because of inflation but Ms. Neuwerth believes will still be in the range of \$26 million. The budget

will continue to decline over the years until the program ends. Mr. Harris added that a few years ago the LCR MSCP budget was in excess of \$30 million.

Ms. Neuwerth added that approximately three-quarters of the habitat needed for the program has been established.

#### **GENERAL ANNOUNCEMENTS**

#### Salton Sea Management Program Annual Report

Mr. Juricich provided an update on the Salton Sea Management Program. Mr. Juricich noted that the Salton Sea Management Annual Report was submitted to the State Water Board by California Natural Resources Agency on February 25, 2022. Mr. Juricich also reported on the 2021-2022 Budget Act, which committed another \$220 million to support the Salton Sea Management Program in the upcoming fiscal years.

#### Washington D.C. Updates

Mr. Harris reported on the U.S. Department of Interior's new staff members. Mr. Harris noted that Mr. Michael Brain is the new Deputy Commissioner at the Bureau of Reclamation; Mr. Gary Gold is the new Deputy Assistant Secretary for Water and Science; and, Ms. Katherine Pustay Currie is the new Deputy Infrastructure Coordinator. Mr. Harris also reported on the federal appropriations. Mr. Harris mentioned that the federal government has extended its Continuing Resolution (CR) until March 11th.

Mr. Harris reported on the published guidebook for states, tribes, and local government to apply for funding for infrastructure projects as part of the Bipartisan Infrastructure Law (BIL), passed in November 2021. Mr. Harris noted that the Environmental Protection Agency's (EPA) Local Government Advisory Committee, whose members include mayors, council members and city officials, urged the EPA to consider climate change and environmental justice when it funds projects as part of the BIL.

#### **Next Scheduled Board Meeting**

Finally, Mr. Harris noted that the next meeting of the Colorado River Board would be held on April 13, 2022, and would be held in-person, at the Sheraton Ontario Airport Hotel.

## **ADJOURNMENT**

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 11:13 a.m.

## **RESOLUTION OF THE COLORADO RIVER BOARD OF CALIFORNIA**

#### **POSTHUMOUSLY HONORING**

## HENRY (HANK) KUIPER

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

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

WHEREAS, the Board's public members serve an essential function by providing a voice for the general public in the critically important management of the resources of the Colorado River; and

WHEREAS, Mr. Henry (Hank) Kuiper served as one of the Board's public members for seventeen years, with a tenure stretching from his appointment by Governor Schwarzenegger in 2005 until his passing in March 2022, adding to an active and distinguished career in public service; and

WHEREAS, Mr. Kuiper brought good cheer, positivity, and practicality to his service with the Board as the Colorado River Basin navigated more than two decades of serious drought and its attendant challenges; and

WHEREAS, during Mr. Kuiper's time with the Board, the Board engaged with stakeholders in California and across the Basin to respond to unprecedented conditions that have required novel solutions, collaboration, and quick action, including the 2007 Interim Operating Guidelines, a seminal document that still directs operations and shortages on the Colorado River, and the 2019 Drought Contingency Plans, which further expanded water use reductions in response to low reservoir conditions; and

WHEREAS, in addition to Mr. Kuiper's contributions to the Colorado River Basin, Mr. Kuiper's storied career demonstrates his dedication to serving the community of the Imperial Valley, including a term as Supervisor for the County of Imperial from 2001-2005; three terms on the El Centro City Council, serving as mayor three times from 1985 to 1997; and membership on numerous other boards, committees, commissions, and civic groups; and

NOW THEREFORE BE IT RESOLVED that the Colorado River Board of California recognizes and honors the many invaluable contributions of Mr. Hank Kuiper during his years of service to Imperial County and to the State of California and its water users; and

BE IT FURTHER RESOLVED that the Colorado River Board of California and its staff extend their gratitude and condolences to Hank's family and loved ones.

Unanimously adopted on the 13<sup>th</sup> day of April 2022.

Peter Nelson, Chairman

4/4/2022

#### LOWER COLORADO WATER SUPPLY REPORT

River Operations

	Bureau of Re	clamation		
Oursetienes, BCOOMetersee Queles new				
(702) 293-8373				
http://www.usbr.gov/lc/region/g4000/weekly.pdf				
		Content	Elev. (Feet	7-Dav
	PERCENT	1000	above mean	Release
CURRENT STORAGE	FULL	ac-ft (kaf)	sea level)	(CFS)
LAKE POWELL	24%	5,807	3,523.04	8,800
* LAKE MEAD	33%	8,502	1,061.04	16,600
LAKE MOHAVE	93%	1,687	642.59	16,400
LAKE HAVASU	93%	574	447.66	12,400
TOTAL SYSTEM CONTENTS **	35%	20,880		
As of 4/3/2022		·		
SYSTEM CONTENT LAST YEAR	44%	26,271		
*Percent based on capacity of 26,120 kaf or el	evation 1,219.6	feet.		
**Total System Contents includes Upper & Lower	Colorado River	Reservoirs, less Lak	e Mead exclusive f	lood control space.
Salt/Verde System	72%	1,648		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	9%	90	1,109.78	25
Forecasted Water Use for Calendar Year 20	)22 (as of 3/2	9/2022) (values ir	n kaf)	
	· · · · · · · · · · · · · · · · · · ·		- <b>.</b>	
NEVADA			266	
SOUTHERN NEVADA WATER SYSTEM				230
OTHERS				36
CALIFORNIA			4,633	
METROPOLITAN WATER DISTRICT OF CALL	IFORNIA			1,081
IRRIGATION DISTRICTS				3,533
OTHERS				19
ARIZONA			2,302	
CENTRAL ARIZONA PROJECT				1,148
OTHERS				1,154
TOTAL LOWER BASIN USE				7,201
DELIVERY TO MEXICO - 2022 (Mexico Sche	eduled Delivery +	+ Preliminary Yearly	Excess )	1,438
OTHER SIGNIFICANT INFORMATION				
UNREGULATED INFLOW INTO LAKE POWELL - AP	RIL FINAL FOR	ECAST DATED 4/4/20	)22	
		MILLION	ACRE-FEET	<pre>% of Normal</pre>
FORECASTED WATER YEAR 2022			6.311	66%
FORECASTED APRIL-JULY 2022			4.100	64%
MARCH OBSERVED INFLOW			0.329	55%
APRIL INFLOW FORECAST			0.600	66%
		Upper Colora	do Basin Sal	t/Verde Basin
WATER YEAR 2022 PRECIP TO DATE		97% (1	6.6")	74% (11.7")
CURRENT BASIN SNOWPACK		87% (1	3")	103% (1.2")

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



# LOWER COLORADO BASIN REGION CY 2022

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

	8,422,820	8,765,429	" 1,825,482	<b>Total Lower Basin &amp; Mexico</b>
	116,633	126,336	3WC Minute 242 <sup>10</sup> 38,726	Water Bypassed Pursuant to IE
	25,039	18,408	903	To Mexico in Excess of Treaty
	1,449,999	1,449,999	of Treaty Requirements <sup>8</sup> 394,570	Total to Mexico in Satisfaction
	0	0	serve <sup>7</sup> 0	Delivery of Mexico's Water Re:
	263	263	serve <sup>6</sup> 263	Creation of Mexico's Water Re
	30,000	30,000	ble Water Savings <sup>5</sup> 0	Creation of Mexico's Recovera
	1,419,736	1,419,736	atisfaction of Treaty Requirements <sup>4</sup> 394,307	Total Deliveries to Mexico in S
339,537	6,861,412	7,200,949	1,391,546	States Total <sup>3</sup>
0	266,038	266,038	37,585	Nevada
284,138	4,349,055	4,633,193	845,391	California
55,399	2,246,319	2,301,718	508,570	Arizona
Approval CY 2022	Use CY 2022	Use CY 2022	To Date CY 2022	WATER USE SUMMARY
Excess to	Approved	Forecast	Use	

<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>4</sup> Includes deliveries to Mexico at the Northerly International Boundary (including delivery from Mexico's Water Reserve), Southerly International Dam for Emergency Delivery to Tijuana; does not include Creation of Mexico's Water Reserve or Creation of Mexico's Recoverable Water Savings. <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 diver

<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 dated July 11, 2019. (Mexico's required Binational Water Scarcity Contingency Plan dated July 11, 2019. (Mexico's required Binational Water Scarcity Contingency Plan Contribution). in the Colorad

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

Delivery from Mexico's Water Reserve pursuant to Section V.E.13 of IBWC Minute 323

Mexico's Recoverable Water Savings delivery. 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 323, Mexico's scheduled deliveries incoporate the required reduction of 50,000 AF from its 1.5 million AF Colorado River water allotment. In accordance with the procedure documented in USIBWC's letter to the Mexican Section of the IBWC dated July 25, 2017 regarding the calculation process applied when accounting for the quantity and quality of the volumes of Mexico's Water Reserve and Mexico's Recoverable Water Savings creation and subtracts out Mexico's Water Reserve and creation and delivery, "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 excess forecast is based on the 5-year average for the period 2016-2020. Bypass forecast is based on the average for the period 1990-2020. Includes States Total, Deliveries to Mexico in Satisfaction of Treaty, To Mexico in Excess of Treaty, and Water Bypassed Pursuant IBWC Minute 242.



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LOWER COLORADO BASIN REGION CY 2022

NOTE: • Diversions and uses that are pending approval are noted in *red* italies

 Water users with a consumptive use entitlement - Excess to Estimated Use column indicates overrun/underrun of entitlement.
 Dash in this column indicates water user has a diversion entitlement.
 Water user with a diversion entitlement - Excess to Approved Diversion column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a consumptive use entitlement.

#### 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)

				Excess to	<b>.</b>			
	Use	Forecast	Estimated	Estimated	Diversion	Forecast	Approved	Approved
	To Date	Use	Use	Use	To Date	Diversion	Diversion	Diversion
WATER USER	<u>CY 2022</u>							
Arizona Pumpers	1,362	6,382	6,382		2,095	9,818	9,818	0
Lake Mead NRA, AZ - Diversions from Lake Mead	3	63	63		3	63	63	0
Lake Mead NRA, AZ - Diversions from Lake Mohave	42	214	214		42	214	214	0
Bureau of Reclamation - Davis Dam Project	0	2	2		3	16	16	0
Bullhead City	1,501	8,699	8,699		2,414	13,730	13,730	0
Mohave Water Conservation District	148	692	692		220	1,030	1,030	0
Mohave Valley I.D.D.	4,830	22,818	22,818		8,944	42,250	42,250	0
Fort Mojave Indian Reservation, AZ	7,808	44,894	44,550		14,460	83,137	82,500	637
Golden Shores Water Conservation District	61	286	286		92	429	429	0
Havasu National Wildlife Refuge	496	3,438	3,564		4,128	38,666	41,835	-3,169
EPCOR Water Arizona, Inc CSA No. 1	101	493	493		154	759	759	0
Lake Havasu City	1,653	9,052	9,052		2,666	14,600	14,600	0
Central Arizona Water Conservation District	311,538	1,147,885			311,538	1,147,885		
Town of Parker	56	424	424		152	917	917	0
EPCOR Water Arizona, Inc CSA No. 2 (formerly Brooke Water, LLC)	65	324	324		95	486	486	0
Colorado River Indian Reservation, AZ	40,310	246,683	227.841		97.774	528,258	508.619	19.639
Ehrenberg Improvement District	54	252	252		75	352	352	0
Arizona State Land Department	612	4 485	4 4 8 5		940	6,900	6,900	0
Cibola Valley I D D	407	5 868	5 868		570	8 205	8 205	0
Red River Land Co	10F 0	214	214		5/0	300	300	0
Western Water LLC	0	279	279		0	520	520	0
Western Water, LLC	101	2 0 6 1	2 061		140	25U 4 270	25U 4 270	0
	101	3,001	3,001		140	4,270	4,270	0
GSC Fallins, LLC	101	2,064	2,064		140	2,913	2,913	0
	0	2,031	2,031		1 000	2,838	2,838	0
	6/1	14,264	14,264	0	1,080	23,005	23,005	0
Imperial National Wildlife Refuge	8/6	3,799	3,799	0	1,412	6,128	6,128	0
BLM Permittees (Parker Dam to Imperial Dam)	266	1,247	1,247	0	409	1,919	1,919	0
Cha Cha, LLC	166	1,365	1,365		253	2,100	2,100	0
Beattie Farms Southwest	87	722	722		132	1,110	1,110	0
Yuma Proving Ground	59	517	517		59	517	517	0
Gila Monster Farm	889	4,576	4,888		1,511	7,896	8,500	-604
Wellton-Mohawk Irrigation and Drainage District	54,446	287,170	278,000	9,170	79,427	424,783	424,350	433
BLM Permittees (Below Imperial Dam)	23	109	109	0	36	168	168	0
City of Yuma	1,562	13,860	15,833	-1,973	3,672	24,785	27,500	-2,715
U.S. Marine Corps Air Station Yuma	209	1,283	1,300		209	1,283	1,300	-17
Union Pacific Railroad	6	29	29		11	48	48	0
University of Arizona	146	852	852		146	852	852	0
Yuma Union High School District	14	150	150		20	200	200	0
Desert Lawn Memorial	6	26	26		8	37	37	0
North Gila Valley Irrigation District	1,751	10,701	10,674		7,956	42,762	43,500	-738
Yuma Irrigation District	8,769	40,925	39,569		13,799	72,776	73,000	-224
Yuma Mesa Irrigation and Drainage District	10,100	113,852	110,859		31,611	239,568	244,280	-4,712
Unit "B" Irrigation and Drainage District	841	13,985	13,129		3,745	28,979	29,400	-421
Fort Yuma Indian Reservation	331	1,553	1,553		510	2,389	2,389	0
Yuma County Water Users' Association	55,370	277,876	275,560		79,216	370,393	367,400	2,993
Cocopah Indian Reservation	691	1,939	1,725		760	2,673	2,650	23
Reclamation - Yuma Area Office	42	195	195		42	195	195	0
Total Arizona	509 570	2 301 710	2 222 706		672 660	3 162 140	3 207 602	
	506,570	2,301,718	2,323,700		072,009	3,103,140	3,207,093	
Central Arizona Project (CAP)	311,538	1,147,885				1,147,885		
All Others	197,032	1,153,833	1,120,143			2,015,255	2,004,130	
Y M Diii GilPj	20 620	165 478	161 102	4 376		355 106		
	12,922	53,188	56,129					

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timated Allowable Use for CAP	cess to Total State Adjusted Apportionment	stal State Adjusted Apportionment	elivery of ICS (CAWCD)	rstem Conservation Water - Reclamation <sup>9</sup>	rstem Conservation Water - Fort McDowell Yavapai Nation (FMYN) <sup>8</sup>	rstem Conservation Water - Colorado River Indian Tribes (CRIT) $^7$	rstem Conservation Water - Pilot System Conservation Program <sup>6</sup>	eation of Extraordinary Conservation ICS - CRIT (Estimated) 4.5	izona DCP Contribution <sup>3,4</sup>	eduction for Tier 1 Shortage <sup>2</sup>	izona Basic Apportionment	
1,123,372	55,399	2,246,319	49,496	(22,059)	(13,933)	(50,000)	(500)	(4,685)	(192,000)	(320,000)	2,800,000	

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

reduction to the state of Arizona's Colorodo River basic apportionment. <sup>2</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

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 / 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>3</sup> In accordance with Sections III.B.1 a and III.E.4 of Lower Basin Drought Contingency Operations (LBOps), the state of Arizona is required to make a DCP Contribution of 192,000 AF in 2022. In accordance Ą

accumulated in Arizona's ICS Accounts will be limited in accordance with Section IV.C. of LBOps. 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. 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 LBOps, the <sup>4</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, Additionally, the total amount of EC ICS, Binational ICS and DCP ICS

<sup>2</sup> 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

This System Conservation Water will remain in Lake Mead to benefit system storage 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

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 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 <sup>7</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

Drought Contingency Plan Agreement (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 pei <sup>8</sup> CAP water being conserved by FMVN pursuant to SCIA No. 20-XX-30-W0688, which will remain in Lake Mead to benefit system storage. In accordance with this SCIA and Section 3.b of the Lower Basin

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>9</sup> System Conservation Water to be created by additional pumping from the 242 Well Field Expansion Project. In accordance with Section 3.b of the LB DCP Agreement, Reclamation intends to apply this water towards the Secretary'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.





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

ristone ose Records (water Accounting Reports)								
				Excess to				Excess to
	Use	Forecast	Estimated	Estimated	Diversion	Forecast	Approved	pproved
	To Date	Use	Use	Use	To Date	Diversion	Diversion	Diversion
WATER USER	CY 2022	CY 2022	CY 2022	CY 2022	CY 2022	CY 2022	CY 2022	CY 2022
Fort Mojave Indian Reservation, CA	1,505	8,345	8,996		2,797	15,510	16,720	-1,210
PPR No. 30 (Stephenson)	5	23	23		9	42	42	0
PPR No. 38 (Andrade)	5	23	23		9	42	42	0
City of Needles (includes LCWSP use)	258	1,605	1,605	0	365	2,261	2,261	0
Chemehuevi Indian Reservation	39	183	183		2,420	11,340	11,340	0
The Metropolitan Water District of Southern California	186,875	1,081,322			187,599	1,083,996		
Colorado River Indian Reservation, CA	1070	5,014	5,014		1,772	8,307	8,307	0
Palo Verde Irrigation District	51,741	412,968	420,696		137,415	846,673	857,000	-10,327
Lake Enterprises	0	1	1		0	1	1	0
Yuma Project Resesrvation Division	8,439	47,355	48,606		18,179	94,880	96,725	-1,845
Yuma Project Reservation Division - Bard Unit					9,488	50,469	51,500	-1,031
Yuma Project Reservation Division - Indian Unit					8,691	44,412	45,225	-813
Fort Yuma Indian Reservation - Ranch 5 (Surface Delivery)	129	1,013	1,013		236	1,832	1,832	0
Fort Yuma Indian Reservation - Other Ranches (Pumpers)	258	1,211	1,211		467	2,188	2,188	0
Yuma Island Pumpers	348	1,629	1,629		629	2,947	2,947	0
Imperial Irrigation District <sup>1</sup>	526,172	2,688,560	2,620,300	68,260	543,125	2,783,841	2,719,536	
Coachella Valley Water District	68,414	383,317	384,000	-683	70,696	398,129	399,950	
Other LCWSP Contractors	120	563	563		194	907	907	0
City of Winterhaven	13	61	61		19	88	88	0
Total California	845,391	4,633,193	4,580,324		965,931	5,252,984	5,208,886	
CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION								
California Basic Apportionment			4,400.000					
System Conservation Water - Pilot System Conservation Program <sup>2</sup>			(145)					

	1,100,000
System Conservation Water - Pilot System Conservation Program <sup>2</sup>	(145)
System Conservation Water - PVID Fallowing Program 3	(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) 5	0
Total State Adjusted Apportionment	4,349,055
Excess to Total State Adjusted Apportionment	284,138

#### Estimated Allowable Use for MWD

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.

865,444

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

<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

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 LBOps.



NOTE: • Diversions and uses that are pending approval are noted in *red* 

 Water users with a consumptive use entitlement - Excess to Head obes which obtain the consultation of entitlement. Dess to the consultation of entitlement.
 Dash in this column indicates overrun/underrun of entitlement. in this column indicates water user has a consumptive use entitlement.

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LOWER COLORADO BASIN REGION CY 2022

Forecast based on use to date and approved annual water orders

Nevada Schedules and Approvals

Forecast end of year diversion/consumptive use

NEVADA WATER USERS

NOTE:
Directions 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.
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.

Historic Use Records (Water Accounting Reports)				Evrace to			<b>7</b>	rase to
	Use	Forecast	Estimated	Estimated	Diversion	Forecast	Approved Ap	proved
	To Date	Use	Use	Use	To Date	Diversion	<b>Diversion</b> Di	version
WATER USER	CY 2022	CY 2022	CY 2022	CY 2022	CY 2022	CY 2022	CY 2022 (	Y 2022
Robert B. Griffith Water Project (SNWS)	88,324	458,049		-	88,324	458,049		
Lake Mead NRA, NV - Diversions from Lake Mead	148	1,500	1,500		148	1,500	1,500	0
Lake Mead NRA, NV - Diversions from Lake Mohave	65	500	500		65	500	500	0
Basic Management, Inc.	1,389	8,208	8,208		1,389	8,208	8,208	0
City of Henderson (BMI Delivery)	2,830	15,878	15,878		2,830	15,878	15,878	0
Nevada Department of Wildlife	2	12	12	0	112	1,000	1,000	1
Pacific Coast Building Products, Inc.	141	928	928		141	928	928	0
Boulder Canyon Project	37	175	175		64	300	300	0
Big Bend Water District	516	4,765	4,765		1,346	10,000	10,000	0
Fort Mojave Indian Tribe	267	4,058	4,623		399	6,057	6,900	-843
Las Vegas Wash Return Flows	-56,134	-228,035	-228,466	-				
Total Nevada	37,585	266,038	260,000	0	94,818	502,420	497,091	-843
Southern Nevada Water System (SNWS) All Others Nevada Uses Above Hoover Nevada Uses Below Hoover	32,190 5,395 36,802 783	230,014 36,024 257,215 8,823				458,049 44,371 486,363 16,057		
Tributary Conservation (TC) Intentionally Created Surplus (ICS)								

# Creation of Extraordinary Conservation ICS - SNWA (Estimated) <sup>3</sup> Reduction for Tier 1 Shortage<sup>2</sup> Southern Nevada Water Authority (SNWA) Creation of TC ICS (Approved) <sup>1</sup> Nevada Basic Apportionment **NEVADA ADJUSTED APPORTIONMENT CALCULATION** 300,000 (13,000) (20,962) 266,038 0 43,000

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Total State Adjusted Apportionment Excess to Total State Adjusted Apportionment

<sup>2</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 13,000 AF reduction to the state of Nevada's Colorodo River basic apportionment. 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

accounting and verification. In accordance with Section XI.G.3. B.4 of the 2007 Interim Guidelines and Section IV.B of Lower Basin Draught 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. '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



# **Upper Colorado Region Water Resources Group**

**River Basin Tea-Cup Diagrams** 

Data Current as of: 04/05/2022

# Upper Colorado River Drainage Basin



# Lower Colorado River Teacup Diagram



NOAA National Weather Service Monthly Precipitation Map February and March 2022







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



Median 1991-2020 - 2022 - 2021 -



# U.S. Drought Monitor West

## March 29, 2022

(Released Thursday, Mar. 31, 2022) Valid 8 a.m. EDT



	Dro	ught Co	ondition	ns (Per	cent Ar	ea)
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	6.71	93.29	88.75	74.66	33.02	3.00
Last Week 03-22-2022	6.61	<mark>9</mark> 3.39	88.81	74.55	31.80	3.00
3 Month s Ago 12-28-2021	4. 14	95.86	89.41	72.36	33.66	5.81
Start of Calendar Year 01-04-2022	<mark>4.43</mark>	95.57	87.78	64.63	25.30	4.75
Start of Water Year 09-28-2021	1.32	98.68	93.35	81.07	58.72	21.77
One Year Ago 03-30-2021	11.95	88.05	73.82	59.44	42.24	23.23

#### Intensity:



D2 Severe Drought D3 Extreme Drought D4 Exceptional Drought

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

### Author:

Deborah Bathke National Drought Mitigation Center



#### droughtmonitor.unl.edu



























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		2021 Storage (acre-feet)		2022 Storage (acre-feet)	
		As of	% of	As of	% of
Reservoir	Capacity	1-Apr	Cap.	1-Apr	Cap.
Frenchman	55,475	36,480	66%	37,662	68%
Lake Davis	84,371	52,072	62%	49,408	59%
Antelope Oroville	22,564 3,553,405	13,935 1,437,589	62% 40%	21,054 1,680,915	93% 47%
TOTAL North	3,715,815	1,540,076	41%	1,789,039	48%
Del Valle	39,914	32,161	81%	39,950	100%
San Luis	2,027,835	1,117,945	55%	923,312	46%
Pyramid	169,901	166,923	<b>98</b> %	164,523	97%
Castaic	319,247	249,697	78%	184,390	58%
Silverwood	74,970	67,135	90%	67,429	90%
Perris	132,614	118,893	90%	104,236	79%
TOTAL South	2,764,481	1,752,754	63%	1,483,840	54%















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