Colorado River Board of California

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

The Colorado River Board of California welcomes any comments from members of the public pertaining to items included on this agenda and related topics. Members of the public may provide comments in the following ways: (1) Oral comments can be provided at the beginning of each Board meeting; and (2) Public comments may be submitted by electronic mail, addressed to the Board's Chairman, Mr. Peter Nelson, at crb@crb.ca.gov and will be accepted up until 10:00 a.m. on the day of the meeting. Please note, written submissions will be read aloud at the public comment period to the extent they fit within the five-minute time limit.

If accommodations 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 crb@crb.ca.gov.

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

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

Christopher S. Harris
Executive Director

Regular Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, May 11, 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[1] (Limited to 5 minutes)

3. Administration

a. Consideration and approval of April 13, 2022 Board meeting Minutes (**Action**)
b. Presentation of Draft Colorado River Board of California FY-2022/2023 Budget (**Information**)
c. FY-2021/2022 Accomplishments Report and FY-2022/2023 Planned Activities Report (**Information**)

4. Colorado River Basin and Local Water Supply and Operations Reports

5. Colorado River Basin Programs Staff Reports

6. Executive Session[2]

7. Other Business

8. Future Agenda Items/Announcements

Next Scheduled Board Meeting: June 15, 2022
10:00 a.m., Pacific
Sheraton Ontario Airport Hotel, Orchid Room
429 North Vineyard Avenue
Ontario, CA 91764

[1] In accordance with California Government Code, Section 54954.3(a).
[2] 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.

COLORADO RIVER BOARD OF CALIFORNIA
FY 2022-23 BUDGET
as of 05/03/2022

DESCRIPTION	Current Year Authorized FY 2021-22	Anticipated Expenditures FY 2021-22	Proposed Budget FY 2022-23	Comments
Colorado River Board Total Budget	$ 2,413,000	$ 2,200,000	$ 2,514,000	

SUPPLEMENTAL INFORMATION
PROPOSED FY-2022/2023 BUDGET
COLORADO RIVER BOARD OF CALIFORNIA

Governor's Proposed budget for the Colorado River Board of California for FY-2022/2023

$2,514,000

Personal Services	$2,147,000
Operating Expenses and Equipment	$367,000
Total:	$2,514,000

Embedded within the Operating Expenses & Equipment category are the following specific programs and their approximate expenses:

CRB Information Technology Support Services contract	$60,000
CRB Support of USGS Lower Colorado River Stream Gaging	$30,000
CRB Support for the LCR MSCP	$16,000
CRB Support for the Salinity Control Program	$44,000
CRB Support for California Employee Assistance Program	$2,000
CRB contract for Human Resources Services	$21,000

3460 Colorado River Board of California

The Colorado River Board protects California's rights and interests in the water and power resources of the Colorado River system. The Board works with: other Colorado River Basin states (Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming), federal agencies, other state agencies, six local agencies (Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley Water District, Metropolitan Water District of Southern California, San Diego County Water Authority, Los Angeles Department of Water and Power), Congress, the courts, and Mexico. Its activities include analyses of engineering, legal and economic matters concerning the Colorado River resources of the seven basin states and the 1944 United States-Mexico Water Treaty obligation to deliver Colorado River water to Mexico.

3-YEAR EXPENDITURES AND POSITIONS

		Positions			Expenditures		
		2020-21	2021-22	2022-23	2020-21*	2021-22*	2022-23*
2410	Protection of California's Colorado River Rights and Interests	11.6	13.2	13.2	$2,101	$2,510	$2,514
TOTALS, POSITIONS AND EXPENDITURES (All Programs)		**11.6**	**13.2**	**13.2**	**$2,101**	**$2,510**	**$2,514**

FUNDING		**2020-21***	**2021-22***	**2022-23***
0995	Reimbursements	$2,101	$2,510	$2,514
TOTALS, EXPENDITURES, ALL FUNDS		**$2,101**	**$2,510**	**$2,514**

LEGAL CITATIONS AND AUTHORITY

DEPARTMENT AUTHORITY

California Water Code, Division 6, Part 5, Sections 12500-12553.

DETAILED BUDGET ADJUSTMENTS

	2021-22*			2022-23*		
	General Fund	Other Funds	Positions	General Fund	Other Funds	Positions
Workload Budget Adjustments						
Other Workload Budget Adjustments						
• Salary Adjustments	$-	$70	-	$-	$70	-
• Benefit Adjustments	-	29	-	-	33	-
• Authorized Positions, Salaries, and Wages Realignment	-	-	5.0	-	-	5.0
• Retirement Rate Adjustments	-	-2	-	-	-2	-
Totals, Other Workload Budget Adjustments	**$-**	**$97**	**5.0**	**$-**	**$101**	**5.0**
Totals, Workload Budget Adjustments	**$-**	**$97**	**5.0**	**$-**	**$101**	**5.0**
Totals, Budget Adjustments	**$-**	**$97**	**5.0**	**$-**	**$101**	**5.0**

DETAILED EXPENDITURES BY PROGRAM

		2020-21*	2021-22*	2022-23*
	PROGRAM REQUIREMENTS			
2410	**PROTECTION OF CALIFORNIA'S COLORADO RIVER RIGHTS AND INTERESTS**			
	State Operations:			
0995	Reimbursements	2,101	2,510	2,514
	Totals, State Operations	**$2,101**	**$2,510**	**$2,514**
	TOTALS, EXPENDITURES			
	State Operations	2,101	2,510	2,514
	Totals, Expenditures	**$2,101**	**$2,510**	**$2,514**

*** Dollars in thousands, except in Salary Range. Numbers may not add or match to other statements due to rounding of budget details.**

3460 Colorado River Board of California - Continued

EXPENDITURES BY CATEGORY

1 State Operations	Positions			Expenditures		
	2020-21	2021-22	2022-23	2020-21*	2021-22*	2022-23*
PERSONAL SERVICES						
Baseline Positions	8.2	8.2	8.2	$767	$888	$888
Authorized Positions, Salaries, and Wages Realignment	-	5.0	5.0	-	505	535
Other Adjustments	3.4	-	-	377	70	70
Net Totals, Salaries and Wages	**11.6**	**13.2**	**13.2**	**$1,144**	**$1,463**	**$1,493**
Staff Benefits	-	-	-	583	650	654
Totals, Personal Services	**11.6**	**13.2**	**13.2**	**$1,727**	**$2,113**	**$2,147**
OPERATING EXPENSES AND EQUIPMENT				$374	$397	$367
TOTALS, POSITIONS AND EXPENDITURES, ALL FUNDS (State Operations)				**$2,101**	**$2,510**	**$2,514**

DETAIL OF APPROPRIATIONS AND ADJUSTMENTS

1 STATE OPERATIONS	2020-21*	2021-22*	2022-23*
0995 Reimbursements			
APPROPRIATIONS			
Reimbursements	$2,101	$2,510	$2,514
TOTALS, EXPENDITURES	**$2,101**	**$2,510**	**$2,514**
Total Expenditures, All Funds, (State Operations)	**$2,101**	**$2,510**	**$2,514**

CHANGES IN AUTHORIZED POSITIONS

	Positions			Expenditures		
	2020-21	2021-22	2022-23	2020-21*	2021-22*	2022-23*
Baseline Positions	8.2	8.2	8.2	$767	$888	$888
Authorized Positions, Salaries, and Wages Realignment	-	5.0	5.0	-	505	535
Salary and Other Adjustments	3.4	-	-	377	70	70
Totals, Adjustments	**3.4**	**5.0**	**5.0**	**$377**	**$575**	**$605**
TOTALS, SALARIES AND WAGES	**11.6**	**13.2**	**13.2**	**$1,144**	**$1,463**	**$1,493**

*** Dollars in thousands, except in Salary Range. Numbers may not add or match to other statements due to rounding of budget details.**

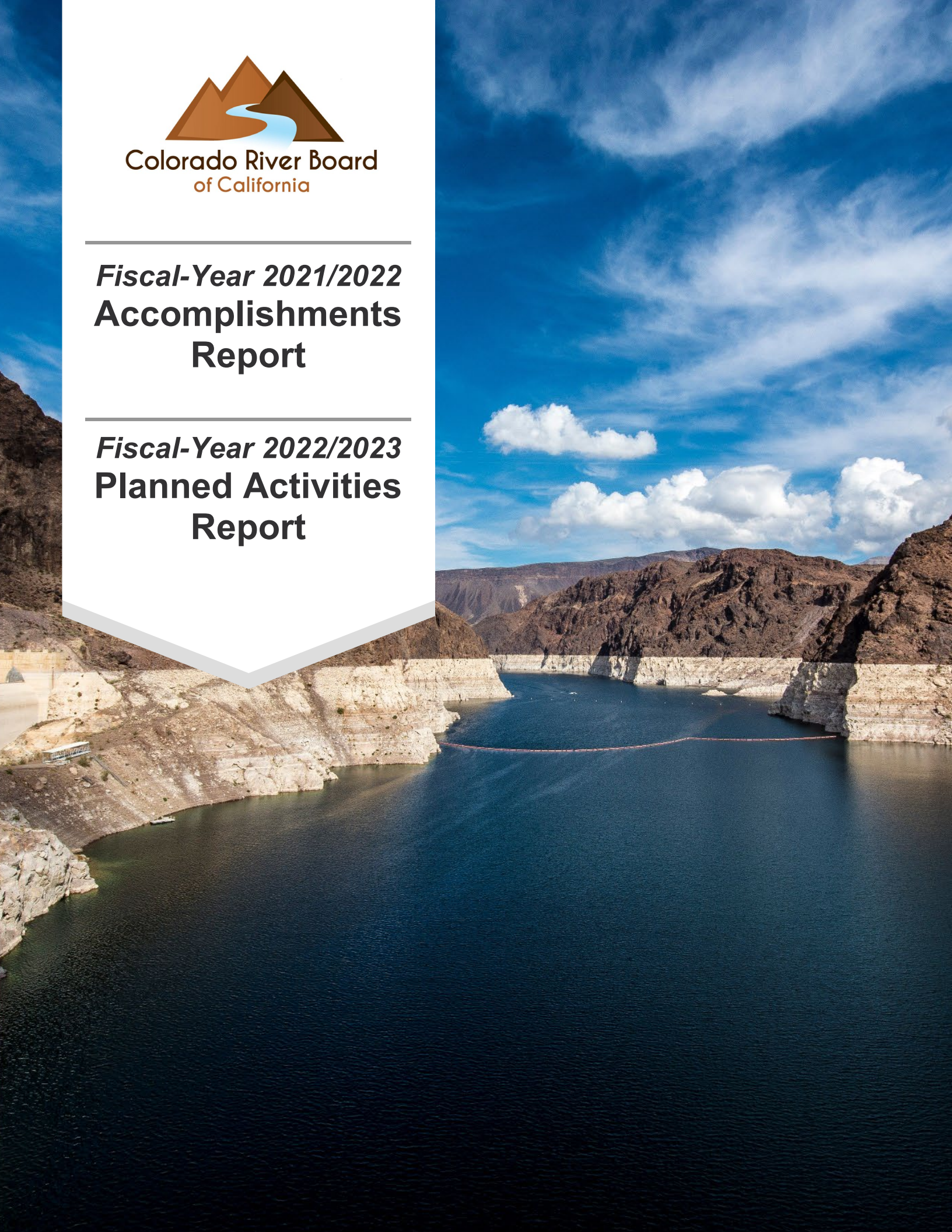
Colorado River Board
of California

Fiscal-Year 2021/2022

Accomplishments Report

Fiscal-Year 2022/2023

Planned Activities Report



Fiscal-Year 2021/2022 Budget

The budget for the Colorado River Board of California for Fiscal Year 2021/2022 was $2,413,000, and was adopted by the Board at its June 9, 2021, regularly scheduled meeting.

Fiscal-Year 2021/2022 Accomplishments

COVID-19 Operations

During Fiscal-Year 2021/2022 (FY-21/22), the staff of the Colorado River Board of California (CRB), operated under the public health guidance and restrictions associated with responding to the COVID-19 pandemic. This included staff primarily working remotely in a telework environment, although as the fiscal year progressed, staff have returned to the office more regularly. In-person CRB meetings and travel has resumed and grown more regular throughout the year. CRB staff continue to comply with all state, county, and local public health agency guidance and public safety protocols.

Fiscal-Year 2021/2022 Accomplishments

In FY-21/22 (July 2021 through June 2022), Colorado River Board of California staff participated in the following major programs and activities:

- Continued to provide California representation and coordination associated with the binational implementation of Minute No. 323 with Mexico, including participation in the Minute No. 323 Oversight Group, Salinity Work Group, Hydrology Work Group, Environmental Work Group, and Desalination Work Group;
- Represented California's interests in the ongoing implementation of the Lower Colorado River Multi-Species Conservation Program (LCR MSCP), including ongoing discussions with Reclamation and the California Department of Fish and Wildlife regarding the implementation of habitat restoration activities pursuant to the terms and conditions of the California Endangered Species Act Section 2081 permit for California LCR MSCP participants. In FY-21/22, Board staff worked closely with Reclamation to implement necessary changes to the federal LCR MSCP permit in order to allow for greater reductions in flow below Hoover Dam as water conservation activities by the Lower Basin States increase. The CRB contributed approximately $16,000 in FY-21/22 for LCR MSCP implementation;
- Represented California's interests in the ongoing implementation of the Glen Canyon Dam Adaptive Management Program (GCDAMP), including annual decision-making regarding

Glen Canyon Dam operational activities pursuant to implementation of the Long-Term Experimental Management Plan. Monitored and reviewed activities related to the down-listing of the humpback chub and potential down-listing of the razorback sucker from endangered to threatened. Represented California through the GCDAMP Planning/Implementation Team of the GCDAMP in making recommendations to the Secretary of the Interior regarding the implementation of flow experiments to benefit the ecosystem below Glen Canyon Dam;

- Represented California's interests in the Colorado River Basin Salinity Control Program where, for the first time in many years, California has three appointed Forum members, including Ms. Jessica Neuwerth representing the Colorado River Board of California, Mr. Joaquin Esquivel representing the California State Water Resources Control Board, and Mr. William Hasencamp representing the Metropolitan Water District of Southern California. Mr. Rich Juricich continues to serve as Work Group Chair; Board staff are working closely with the Basin states to identify a pathway with Reclamation for continued long-term salinity control in Paradox Valley, including the development and approval of a test plan in April 2022 to restart injection of brine from the existing Paradox Valley Unit facilities; Initiated work collaboratively with Reclamation and the Salinity Control Forum to develop the 2023 Triennial Review of Water Quality Standards for Salinity, Colorado River Basin; Continued participation in and contributed annual cost-share funding of approximately $45,000 for the Colorado River Basin Salinity Control Program and the monitoring of other important water quality programs and initiatives including the Topock Hexavalent Chromium, Las Vegas Wash Perchlorate, and Moab Uranium Mill-Tailings remediation efforts;

- Participated in the planning and implementation of ongoing weather modification activities in Colorado, Utah, and Wyoming during the 2021/2022 winter season under the Basin States programmatic funding agreement. California's cost share in FY-21/22 was approximately $325,000 provided through the Six Agency Committee;

- Continued ongoing annual cost-sharing support for maintenance and operation of Lower Colorado River Basin stream gaging station network with the U.S. Geological Survey;

- Provided California representation on the Colorado River Climate and Hydrology Workgroup to consider climate and hydrology research & modeling projects to benefit decision making in the basin;

- Continued development of the Board's strategy for updating the guidelines for lower basin shortages and coordinated operations for Lake Powell and Lake Mead including development of several technical papers on Colorado River management issues, and continuing focused technical meetings with California agency technical staff;

- Participated in numerous technical- and policy-level Basin states meetings addressing activities and measures to protect critical elevations in the reservoir system and

development of additional drought mitigation projects, and provided support to California's Colorado River Commissioner;

- Provided regular updates, briefings, and presentations to staff from the California Natural Resources Agency, Department of Water Resources, and Governor's Office regarding Colorado River Basin issues and activities;
- Filled a new Water Resources Engineer position in January 2022 to assist with the Board's technical activities.
- Regularly hosted virtual meetings with technical staff from the California agencies to share agency perspectives and activities associated with ongoing Colorado River issues and activities;
- Collaborated with the California agencies, states of Arizona and Nevada, and Reclamation on the development and finalization of the 500+ Plan, which is intended to incentivize additional conservation in 2022 and 2023 to boost the declining levels of Lake Mead; and
- Continued to review and track activities associated with the Upper Basin development of the 2022 drought operations plan, and the State of Utah's proposed Lake Powell Pipeline Project.

Fiscal-Year 2022/2023 Planned Activities

COVID-19 Operations

It is currently unclear what level of COVID-19 operations will need to be maintained and/or continued during FY-2022/2023 (FY-22/23), but the expectation is that staff will continue to adhere to and implement all applicable public health and safety guidance provided by state, county, and local public health agencies. Currently, CRB is in the process of developing long-term post-pandemic teleworking policies and guidance for agency implementation. It is expected that CRB staff will maintain some level of teleworking going forward. For the foreseeable future, it is expected that CRB monthly Board meetings will be held in-person.

CRB Planned Activities for FY-2022/2023

With the Governor's proposed FY-22/23 budget of $2,514,000 for the period July 1, 2022 through June 30, 2023, Colorado River Board of California staff anticipates participating in the following major programs and activities:

- Continue to participate in ongoing binational U.S./Mexico activities associated the implementation of Minute No. 323 and associated workgroups;
- Continue staff participation in programs and activities associated with Colorado River operations, including implementation of the 2007 Interim Guidelines and the Basinwide Drought Contingency Plans; as well as monitoring and evaluating annual water use accounting of mainstream Colorado River water supplies in the Lower Basin;
- Continue participation in the ongoing implementation of the Glen Canyon Dam Adaptive Management Program;
- Continue participation in the Lower Colorado River Multi-Species Conservation Program, including a projected annual contribution of approximately $16,000 for FY-22/23;
- Continue participation in and cost-share funding of the Colorado River Basin Salinity Control Program and the monitoring of other ongoing water quality programs and activities;
- Continue participation in the Basin States cost-sharing of winter season weather modification efforts in Colorado, Utah, and Wyoming;
- Continue providing annual financial support to the U.S. Geological Survey to provide effective stream gaging stations in the Lower Colorado Basin;
- Continue participation in the Colorado River Climate and Hydrology Workgroup, which includes planning of the next Climate and Hydrology Symposium, and ongoing development of proposed climate and hydrology research projects;
- Continue to develop and provide effective technical support and modeling expertise to the Board member agencies;
- Continue providing effective direction, participation and technical support related to the development of the next set of interim operating guidelines for the Colorado River System, including development of draft California Guiding Principles, outreach to California agencies and stakeholders, leading and organizing technical and policy webinars for the California agencies;
- Continue participation in Basin states principal and technical meetings and continue to provide support to California's Colorado River Commissioner; and
- Continue participation by Board staff in advocating and representation of California's positions at conferences and symposia.

5/2/2022

LOWER COLORADO WATER SUPPLY REPORT

River Operations

Bureau of Reclamation

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

	PERCENT FULL	Content 1000 ac-ft (kaf)	Elev. (Feet above mean sea level)	7-Day Release (CFS)
CURRENT STORAGE				
LAKE POWELL	24%	5,787	3,522.71	8,700
* LAKE MEAD	31%	8,015	1,054.55	18,200
LAKE MOHAVE	94%	1,697	642.93	16,900
LAKE HAVASU	91%	561	447.01	12,700
TOTAL SYSTEM CONTENTS **	34%	20,366		
As of 5/1/2022				
SYSTEM CONTENT LAST YEAR	43%	25,526		

*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	71%	1,631		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	9%	88	1,108.90	25

Forecasted Water Use for Calendar Year 2022 (as of 5/2/2022) (values in kaf)

NEVADA	265	
SOUTHERN NEVADA WATER SYSTEM		231
OTHERS		34
CALIFORNIA	4,667	
METROPOLITAN WATER DISTRICT OF CALIFORNIA		1,106
IRRIGATION DISTRICTS		3,544
OTHERS		17
ARIZONA	2,294	
CENTRAL ARIZONA PROJECT		1,137
OTHERS		1,157
TOTAL LOWER BASIN USE		7,226
DELIVERY TO MEXICO - 2022 (Mexico Scheduled Delivery + Preliminary Yearly Excess[1])		1,470

OTHER SIGNIFICANT INFORMATION

UNREGULATED INFLOW INTO LAKE POWELL - APRIL MID-MONTH FORECAST DATED 4/18/2022

	MILLION ACRE-FEET	% of Normal
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 Colorado Basin	Salt/Verde Basin
WATER YEAR 2022 PRECIP TO DATE	94% (19.0")	66% (11.8")
CURRENT BASIN SNOWPACK	75% (8.5")	NA% (NA)

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

May 03, 2022 09:00:48 AM

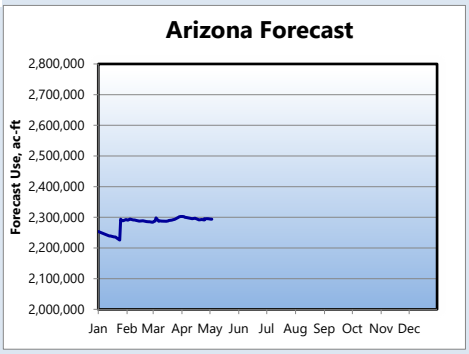
— BUREAU OF — RECLAMATION

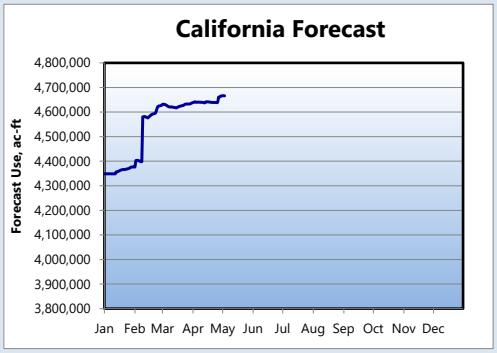
LOWER COLORADO BASIN REGION
CY 2022

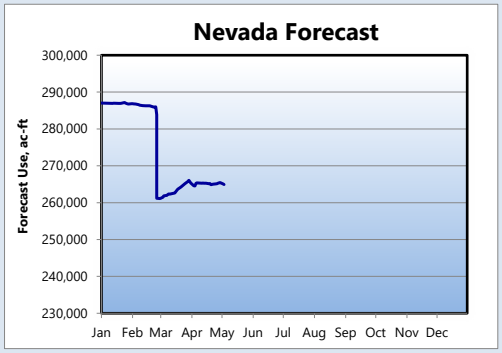
ARIZONA, CALIFORNIA, NEVADA, MEXICO
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS [1]
(ACRE-FEET)

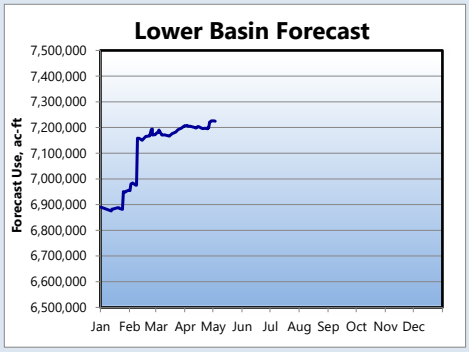
WATER USE SUMMARY	Use To Date CY 2022	Forecast Use CY 2022	Approved Use [2] CY 2022	Excess to Approval CY 2022
Arizona	831,278	2,293,797	2,246,679	**47,118**
California	1,403,845	4,665,612	4,349,055	**316,557**
Nevada	59,413	264,911	264,911	0
States Total [3]	**2,294,536**	**7,224,320**	**6,860,645**	**363,675**
Total Deliveries to Mexico in Satisfaction of Treaty Requirements [4]	580,702	1,454,714	1,454,714	
Creation of Mexico's Recoverable Water Savings [5]	0	30,000	30,000	
Creation of Mexico's Water Reserve [6]	263	263	263	
Delivery of Mexico's Water Reserve [7]	(140)	(34,977)	(34,977)	
Total to Mexico in Satisfaction of Treaty Requirements [8]	580,825	1,450,000	1,450,000	
To Mexico in Excess of Treaty [9]	1,188	14,993	25,039	
Water Bypassed Pursuant to IBWC Minute 242 [10]	52,940	128,907	116,633	
**Total Lower Basin & Mexico '' **	**2,929,366**	**8,822,934**	**8,457,031**	

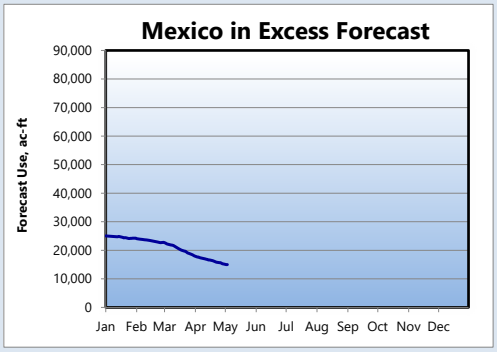
[1] Incorporates 80 daily reporting stations which may be revised after provisional data reports are distributed by the USGS. Use to date is estimated for users reporting monthly and annually.
[2] These values reflect adjusted apportionments. See Adjusted Apportionment calculation on each state page.
[3] Includes unmeasured returns based on estimated consumptive use/diversion ratios by user from studies provided by Arizona Department of Water Resources, Colorado River Board of California, and Reclamation.
[4] Includes deliveries to Mexico at the Northerly International Boundary (including delivery from Mexico's Water Reserve), Southerly International Boundary, Limitrophe, and 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.
[5] Water deferred by Mexico pursuant to Section IV of IBWC Minute 323 and the *Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin* dated July 11, 2019. (Mexico's required Binational Water Scarcity Contingency Plan Contribution).
[6] Water deferred by Mexico pursuant to Section V of IBWC Minute 323.
[7] Delivery from Mexico's Water Reserve pursuant to Section V.E.13 of IBWC Minute 323.
[8] In accordance with Section XI.G.2.D.1.a of the 2007 Interim Guidelines, a Tier 1 Shortage Condition will govern the operation of Lake Mead and the Lower Colorado River in 2022. In accordance with Section III.A of Minute 323, Mexico's scheduled deliveries incoporate the required reduction of 50,000 AF from its 1.5 million AF Colorado River water allotment. "Total Delivery to Mexico in Satisfaction of Treaty Requirements" adds in Mexico's Water Reserve and Mexico's Recoverable Water Savings creation and subtracts out Mexico's Water Reserve and Mexico's Recoverable Water Savings delivery.
[9] Mexico excess forecast is based on the 5-year average for the period 2016-2020.
[10] Bypass forecast is based on the average for the period 1990-2020.
[11] Includes States Total, Deliveries to Mexico in Satisfaction of Treaty, To Mexico in Excess of Treaty, and Water Bypassed Pursuant IBWC Minute 242.

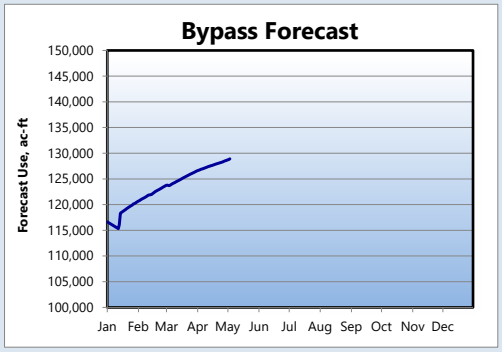












Graph notes: January 1 forecast use is scheduled use in accordance with the Annual Operating Plan's state entitlements, available unused entitlements, and over-run paybacks. A downward sloping line indicates use at a lower rate than scheduled, upward sloping is above schedule, and a flat line indicates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

May 03, 2022 09:00:48 AM

— BUREAU OF —
RECLAMATION

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)

WATER USER	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
Arizona Pumpers	2,143	6,382	6,382	---	3,296	9,818	9,818	0
Lake Mead NRA, AZ - Diversions from Lake Mead	15	69	69	---	15	69	69	0
Lake Mead NRA, AZ - Diversions from Lake Mohave	68	219	219	---	68	219	219	0
Bureau of Reclamation - Davis Dam Project	1	2	2	---	5	16	16	0
Bullhead City	2,066	8,539	8,699	---	3,259	13,416	13,730	-314
Mohave Water Conservation District	232	692	692	---	346	1,030	1,030	0
Mohave Valley I.D.D.	4,586	19,794	22,818	---	8,491	36,651	42,250	-5,599
Fort Mojave Indian Reservation, AZ	13,203	45,255	44,550	---	24,451	83,805	82,500	**1,305**
Golden Shores Water Conservation District	96	286	286	---	144	429	429	0
Havasu National Wildlife Refuge	1,280	3,681	3,564	---	10,666	38,837	41,835	-2,998
EPCOR Water Arizona, Inc. - CSA No. 1	177	526	493	---	290	997	997	0
Lake Havasu City	2,393	8,886	9,052	---	3,859	14,332	14,600	-268
Central Arizona Water Conservation District	475,212	1,136,381		---	475,212	1,136,381		---
Town of Parker	100	424	424	---	243	917	917	0
EPCOR Water Arizona, Inc. - CSA No. 2 (formerly Brooke Water, LLC)	93	319	324	---	139	479	486	-7
Colorado River Indian Reservation, AZ	76,950	254,502	227,841	---	163,580	538,056	508,619	**29,437**
Ehrenberg Improvement District	85	252	252	---	118	352	352	0
Arizona State Land Department	1,506	4,485	4,485	---	2,316	6,900	6,900	0
Cibola Valley I.D.D.	1,614	6,076	5,868	---	2,257	8,495	8,205	**290**
Red River Land Co.	44	225	214	---	63	316	300	**16**
Western Water, LLC	74	379	379	---	103	530	530	0
Hopi Tribe	851	3,285	3,061	---	1,190	4,592	4,278	**314**
GSC Farms, LLC	484	2,308	2,084	---	678	3,228	2,913	**315**
Arizona Game & Fish	194	1,925	2,031	---	271	2,690	2,838	-148
Cibola National Wildlife Refuge	2,497	14,264	14,264	0	4,027	23,005	23,005	0
Imperial National Wildlife Refuge	1,268	3,799	3,799	0	2,044	6,128	6,128	0
BLM Permittees (Parker Dam to Imperial Dam)	419	1,247	1,247	0	644	1,919	1,919	0
Cha Cha, LLC	331	1,350	1,365	---	510	2,077	2,100	-23
Beattie Farms Southwest	215	753	722	---	330	1,159	1,110	**49**
Yuma Proving Ground	97	507	524	---	97	507	524	-17
Gila Monster Farm	1,501	4,631	4,888	---	2,590	8,010	8,500	-490
Wellton-Mohawk Irrigation and Drainage District	98,564	290,146	278,000	**12,146**	139,487	429,254	424,350	**4,904**
BLM Permittees (Below Imperial Dam)	37	109	109	0	56	168	168	0
City of Yuma	3,629	14,364	15,833	-1,469	7,006	25,564	27,500	-1,936
U.S. Marine Corps Air Station Yuma	326	1,269	1,300	---	326	1,269	1,300	-31
Union Pacific Railroad	8	29	29	---	16	48	48	0
University of Arizona	222	824	852	---	222	824	852	-28
Yuma Union High School District	32	149	149	---	43	200	200	0
Desert Lawn Memorial	9	26	26	---	12	37	37	0
North Gila Valley Irrigation District	2,661	10,068	10,674	---	12,805	42,557	43,500	-943
Yuma Irrigation District	13,228	39,688	39,569	---	24,333	73,139	73,000	**139**
Yuma Mesa Irrigation and Drainage District	18,586	110,116	110,859	---	55,021	237,655	244,280	-6,625
Unit "B" Irrigation and Drainage District	2,312	13,605	13,129	---	6,964	28,704	29,400	-696
Fort Yuma Indian Reservation	521	1,553	1,553	---	802	2,389	2,389	0
Yuma County Water Users' Association	100,782	278,638	275,560	---	134,450	371,144	367,400	**3,744**
Cocopah Indian Reservation	501	1,575	1,725	---	536	2,182	2,650	-468
Reclamation - Yuma Area Office	65	195	195	---	65	195	195	0
Total Arizona	**831,278**	**2,293,797**	**2,323,723**		**1,093,446**	**3,160,689**	**3,207,949**	
Central Arizona Project (CAP)	475,212	1,136,381				1,136,381		
All Others	356,066	1,157,416	1,120,160			2,024,308	2,004,386	
Yuma Mesa Division, Gila Project	34,475	159,872	161,102	-1,230		353,351		
Total 242 Well Field Pumping [1]	18,981	52,828	56,129					

Footnotes: See next page.

ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Arizona Basic Apportionment	2,800,000
Reduction for Tier 1 Shortage [2]	(320,000)
Arizona DCP Contribution [3,4]	(192,000)
Creation of Extraordinary Conservation ICS - CRIT (Estimated) [4,5]	(4,685)
System Conservation Water - Pilot System Conservation Program [6]	(500)
System Conservation Water - Colorado River Indian Tribes (CRIT) [7]	(50,000)
System Conservation Water - Fort McDowell Yavapai Nation (FMYN) [8]	(13,933)
System Conservation Water - Reclamation [9]	(21,699)
Delivery of ICS (CAWCD)	49,496
Total State Adjusted Apportionment	2,246,679
Excess to Total State Adjusted Apportionment	47,118
Estimated Allowable Use for CAP	1,132,703

[1] 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 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.

[2] In accordance with Section XI.G.2.D.1.a of the 2007 Interim Guidelines, a Tier 1 Shortage Condition will govern the operation of Lake Mead and the Lower Colorado River in 2022, resulting in a 320,000 AF reduction to the state of Arizona's Colorodo River basic apportionment.

[3] 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 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.

[4] 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 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 Arizona's ICS Accounts will be limited in accordance with Section IV.C. of LBOps.

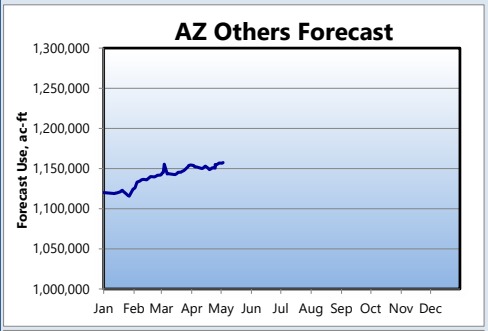
[5] CRIT has an approved ICS Plan for the creation of up to 4,685 AF of EC ICS in 2022. The actual amount of EC ICS created by CRIT will be based on final accounting and verification.

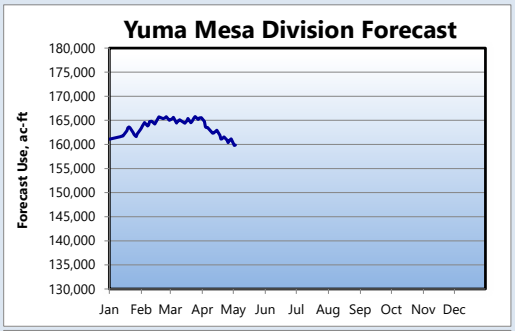
[6] The estimated amount of System Conservation Water that will be created by the City of Bullhead City pursuant to System Conservation Implementation Agreement (SCIA) No. 15-XX-30-W0587, as amended. This System Conservation Water will remain in Lake Mead to benefit system storage.

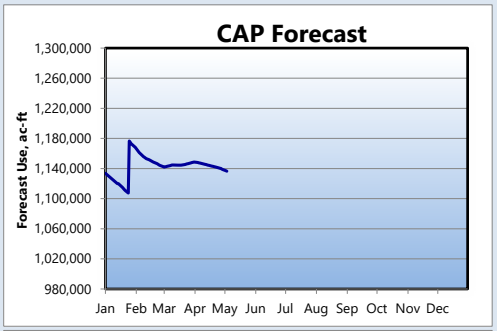
[7] System Conservation Water to be created by CRIT pursuant to the *Agreement Among the United States of America, Through the Department of the Interior, Bureau of Reclamation, the State of Arizona, Through the Arizona Department of Water Resources, the Central Arizona Water Conservation District, and 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.

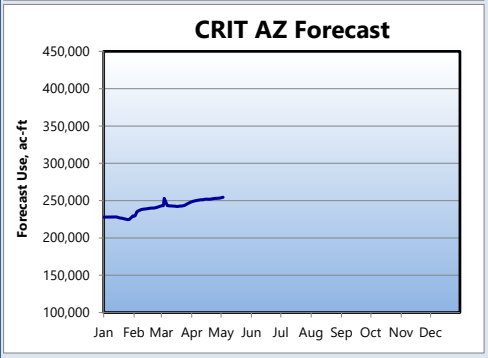
[8] CAP water being conserved by FMYN pursuant to SCIA No. 20-XX-30-W0688, which will remain in Lake Mead to benefit system storage. In accordance with this SCIA and Section 3.b of the *Lower Basin Drought Contingency Plan Agreement* (LB DCP Agreement), the Bureau of Reclamation intends to apply this water towards the Secretary of the Interior's commitment to create or conserve 100,000 AF 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.

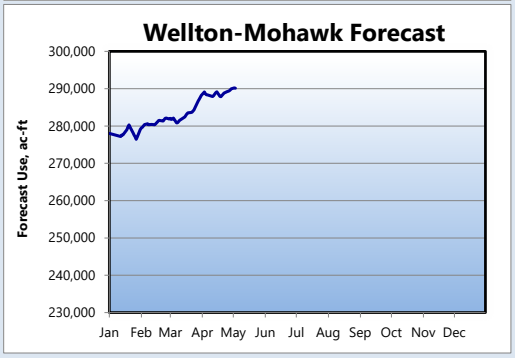
[9] System Conservation Water to be created by additional pumping from the 242 Well Field Expansion Project. In accordance with Section 3.b of the LB DCP Agreement, Reclamation intends to apply this water towards the Secretary's commitment to create or conserve 100,000 AF per annum or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the Lower Basin.

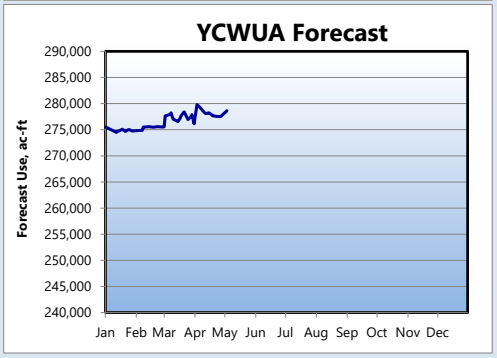












NOTES: Click on Arizona Schedules and Approvals above for incoming diversion schedules and approvals.

May 03, 2022 09:00:48 AM

BUREAU OF RECLAMATION

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.

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)

WATER USER	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
Fort Mojave Indian Reservation, CA	2,196	7,500	8,996	---	4,081	13,939	16,720	-2,781
PPR No. 30 (Stephenson)	8	23	23	---	14	42	42	0
PPR No. 38 (Andrade)	8	23	23	---	14	42	42	0
City of Needles (includes LCWSP use)	345	1,500	1,605	-105	614	2,241	2,261	-20
Chemehuevi Indian Reservation	61	183	183	---	3,807	11,340	11,340	0
The Metropolitan Water District of Southern California	303,976	1,105,474		---	304,964	1,108,179		---
Colorado River Indian Reservation, CA	1683	5,014	5,014	---	2,789	8,307	8,307	0
Palo Verde Irrigation District	93,014	403,050	420,696	---	224,213	840,020	857,000	-16,980
Lake Enterprises	0	1	1	---	0	1	1	0
Yuma Project Reserv ation Division	16,609	46,079	48,606	---	32,077	93,436	96,725	-3,289
Yuma Project Reservation Division - Bard Unit	---	---	---	---	14,822	48,787	51,500	-2,713
Yuma Project Reservation Division - Indian Unit	---	---	---	---	17,255	44,649	45,225	-576
Fort Yuma Indian Reservation - Ranch 5 (Surface Delivery)	354	992	1,013	---	652	1,807	1,832	-25
Fort Yuma Indian Reservation - Other Ranches (Pumpers)	407	1,211	1,211	---	735	2,188	2,188	0
Yuma Island Pumpers	547	1,629	1,629	---	989	2,947	2,947	0
Imperial Irrigation District [1]	881,612	2,713,138	2,620,300	**92,838**	894,847	2,800,388	2,719,536	---
Coachella Valley Water District	102,816	379,171	384,000	-4,829	107,083	395,446	399,950	---
Other LCWSP Contractors	189	563	563	---	305	907	907	0
City of Winterhaven	20	61	61	---	30	88	88	0
Total California	**1,403,845**	**4,665,612**	**4,601,276**		**1,577,214**	**5,281,318**	**5,229,886**	

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

California Basic Apportionment	4,400,000
System Conservation Water - Pilot System Conservation Program [2]	(145)
System Conservation Water - PVID Fallowing Program [3]	(50,800)
Creation of Extraordinary Conservation ICS by IID - Stored in Lake Mead (Estimated) [4]	0
Creation of Extraordinary Conservation ICS by MWD (Estimated) [5]	0
Total State Adjusted Apportionment	4,349,055
Excess to Total State Adjusted Apportionment	316,557
Estimated Allowable Use for MWD	881,755

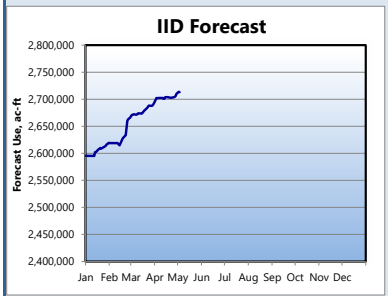
[1] As shown here, IID's Approved Diversion and Estimated Use values reflect the maximum amount of Colorado River water available to IID in 2022. Note: This forecast may be updated to reflect up to 25,000 AF of water conserved and stored by IID pursuant to the IID-MWD Settlement and Release Agreement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

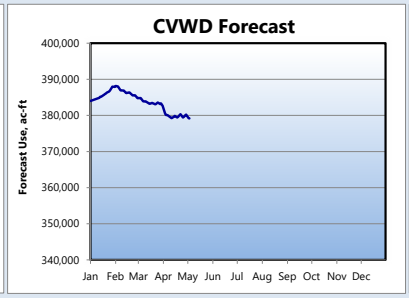
[2] System Consevation Water to be conserved by the City of Needles pursuant to System Conservation Implementation Agreement No. 15-XX-30-W0596, executed under the Pilot System Conservation Program. This water will remain in Lake Mead to benefit system storage.

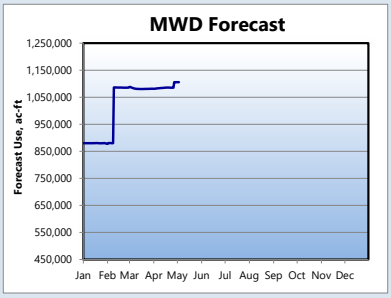
[3] The estimated amount of System Conservation Water that will be created pursuant to Funding Agreement No. 21-XX-30-W0714 (Funding Agreement). This System Conservation Water will remain in Lake Mead to benefit system storage. In accordance with the Funding Agreement, the Bureau of Reclamation intends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

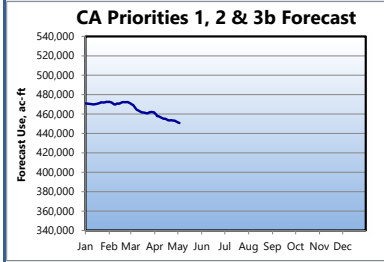
[4] IID has an approved ICS Plan for the creation of up to 62,000 AF of Extraordinary Conservation (EC) ICS in 2022; however, pursuant to Section 3 of the of the *California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus* , as amended, IID may accumulate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

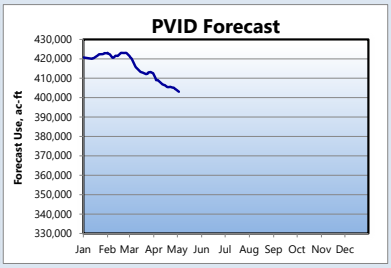
[5] MWD has an approved ICS Plan for the creation of up to 450,000 AF of EC ICS in 2022. The actual amount of EC ICS created by MWD in 2022 will be based on final accounting and verification, and will be limited to the amount that, when combined with the amount of EC ICS created by IID, does not exceed the maximum EC ICS creation capacity available to the state of California. In accordance with Section XI.G.3.B.4 and Section IV.B of *Lower Basin Drought Contingency Operations* (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 California's ICS Accounts will be limited in accordance with Section IV.C. of LBOps.











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

May 03, 2022 09:00:48 AM

BUREAU OF RECLAMATION

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 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
Robert B. Griffith Water Project (SNWS)	128,657	460,392		---	128,657	460,392		---
Lake Mead NRA, NV - Diversions from Lake Mead	156	1,307	1,500	---	156	1,307	1,500	-193
Lake Mead NRA, NV - Diversions from Lake Mohave	88	445	500	---	88	445	500	-55
Basic Management, Inc.	1,931	7,533	8,208	---	1,931	7,533	8,208	-675
City of Henderson (BMI Delivery)	4,790	15,001	15,878	---	4,790	15,001	15,878	-877
Nevada Department of Wildlife	2	10	12	-2	172	921	1,000	---
Pacific Coast Building Products, Inc.	276	900	928	---	276	900	928	-28
Boulder Canyon Project	59	175	175	---	101	300	300	0
Big Bend Water District	593	4,262	4,765	---	1,357	8,630	10,000	-1,370
Fort Mojave Indian Tribe	723	3,967	4,623	---	1,079	5,921	6,900	-979
Las Vegas Wash Return Flows	-77,862	-229,081	-228,466	---				
Total Nevada	**59,413**	**264,911**	**260,000**	**-2**	**138,607**	**501,350**	**497,091**	**-4,177**
Southern Nevada Water System (SNWS)	50,795	231,311				460,392		
All Others	8,618	33,600				40,958		
Nevada Uses Above Hoover	58,097	256,682				486,799		
Nevada Uses Below Hoover	1,316	8,229				14,551		

Tributary Conservation (TC) Intentionally Created Surplus (ICS)

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

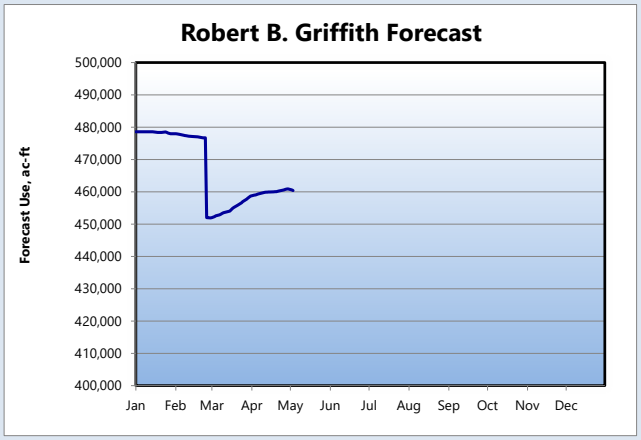
NEVADA ADJUSTED APPORTIONMENT CALCULATION

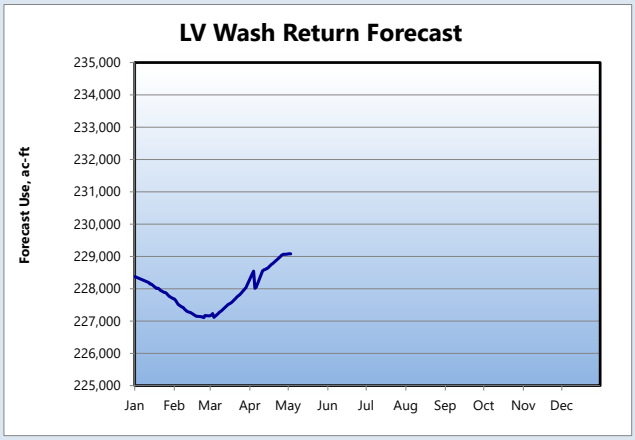
Nevada Basic Apportionment	300,000
Reduction for Tier 1 Shortage [2]	(13,000)
Creation of Extraordinary Conservation ICS - SNWA (Estimated) [3]	(22,089)
Total State Adjusted Apportionment	264,911
Excess to Total State Adjusted Apportionment	0

[1] SNWA has an approved ICS Plan for the creation of up to 43,000 AF of TC ICS in 2022. The actual amount of TC ICS created by SNWA in 2022 will be based on final accounting and verification.

[2] In accordance with Section XI.G.2.D.1.a of the 2007 Interim Guidelines, a Tier 1 Shortage Condition will govern the operation of Lake Mead and the Lower Colorado River in 2022, resulting in a 13,000 AF reduction to the state of Nevada's Colorodo River basic apportionment.

[3] SNWA has an approved ICS Plan for the creation of up to 100,000 AF of Extraordinary Conservation (EC) ICS in 2022. The actual amount of EC ICS created by SNWA in 2022 will be based on final accounting and verification. In accordance with Section XI.G.3.B.4 of the 2007 Interim Guidelines and Section IV.B of *Lower Basin Drought Contingency Operations* (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.



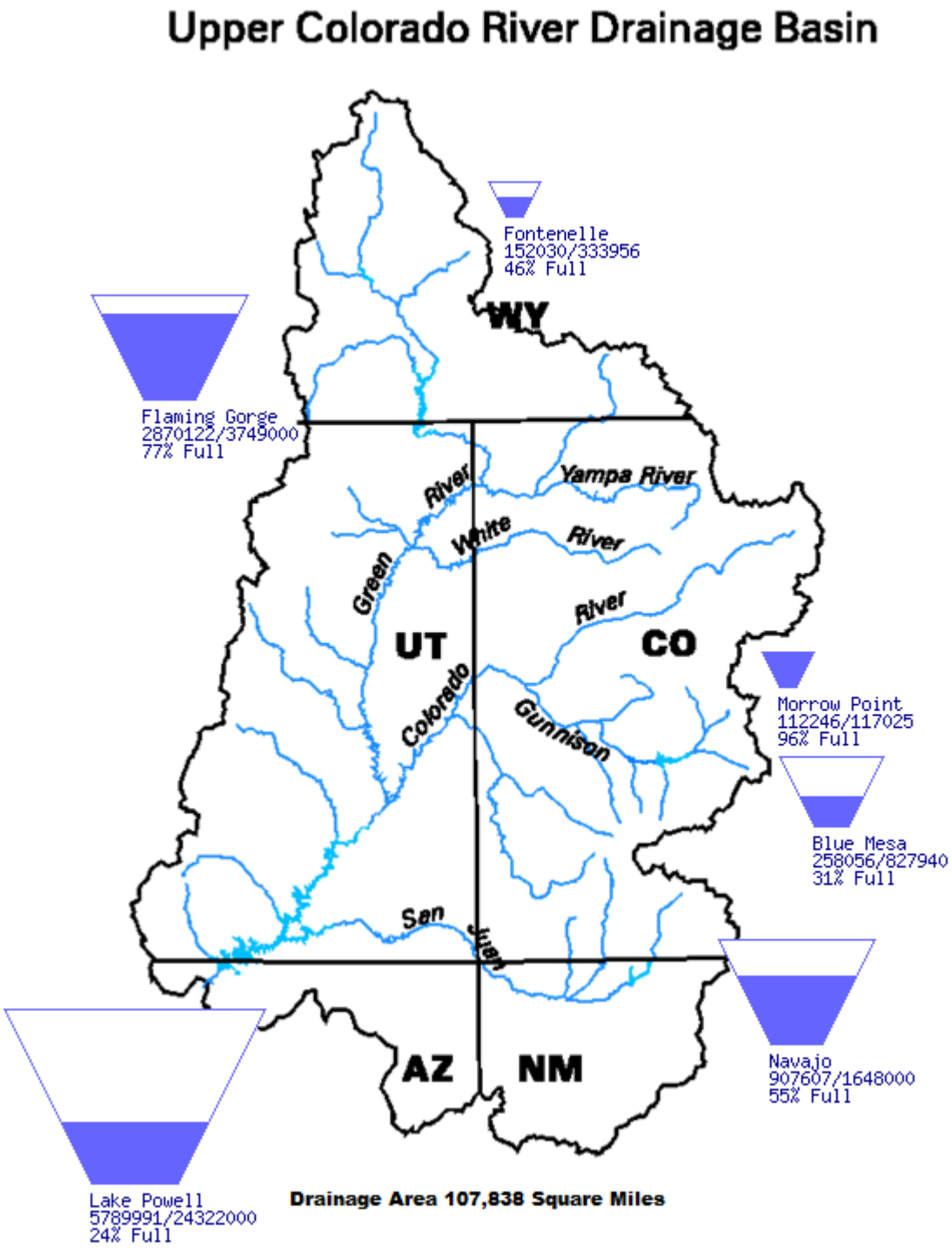


NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

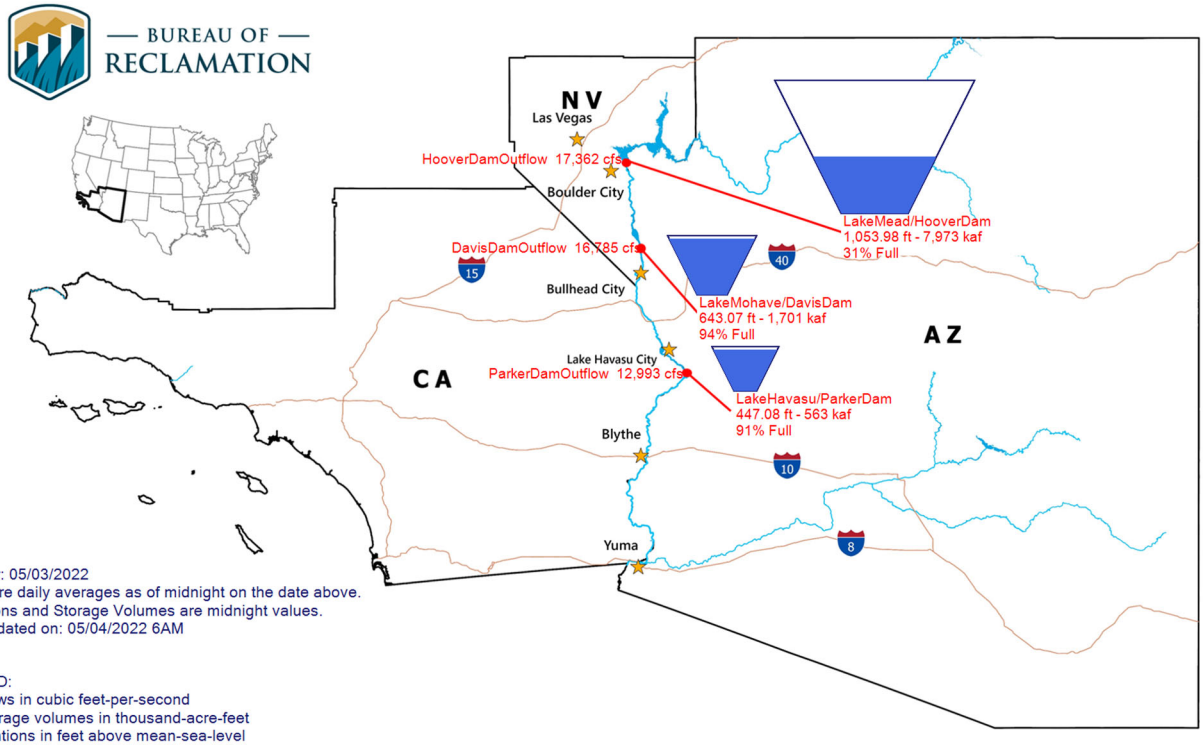
Upper Colorado Region Water Resources Group

River Basin Tea-Cup Diagrams

Data Current as of:
05/03/2022



Lower Colorado River Teacup Diagram



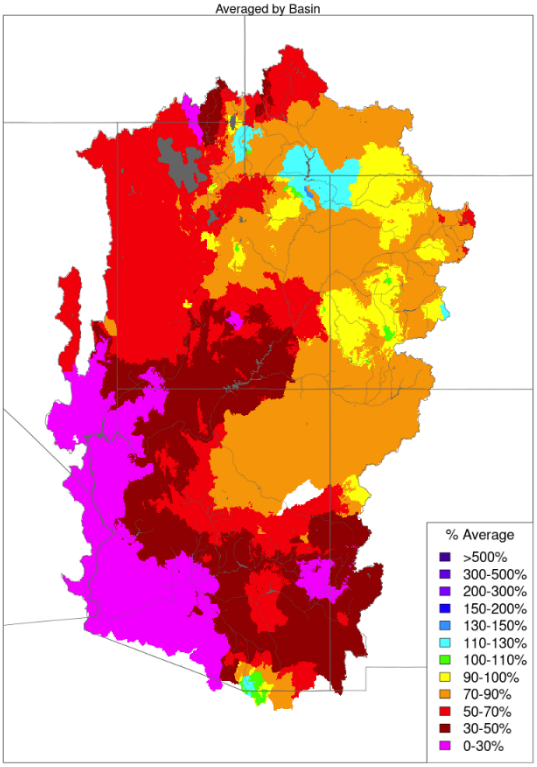
Data for: 05/03/2022
Flows are daily averages as of midnight on the date above.
Elevations and Storage Volumes are midnight values.
Last updated on: 05/04/2022 6AM

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 March and April 2022

Monthly Precipitation - March 2022

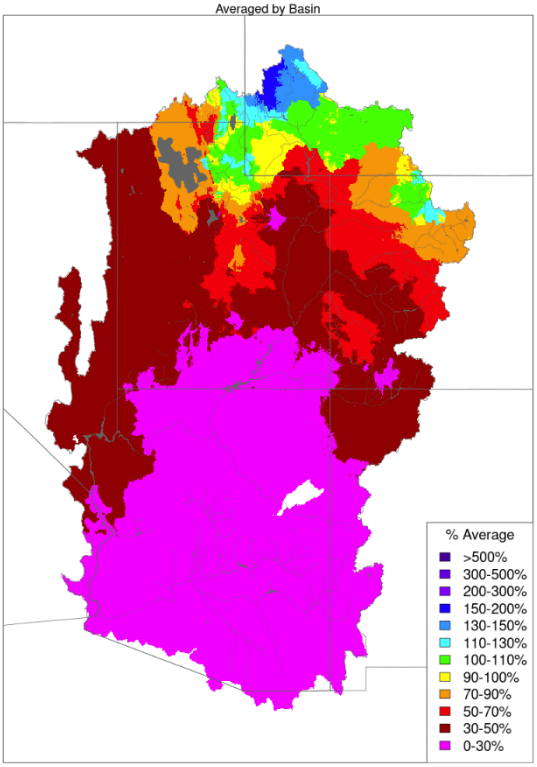
Averaged by Basin



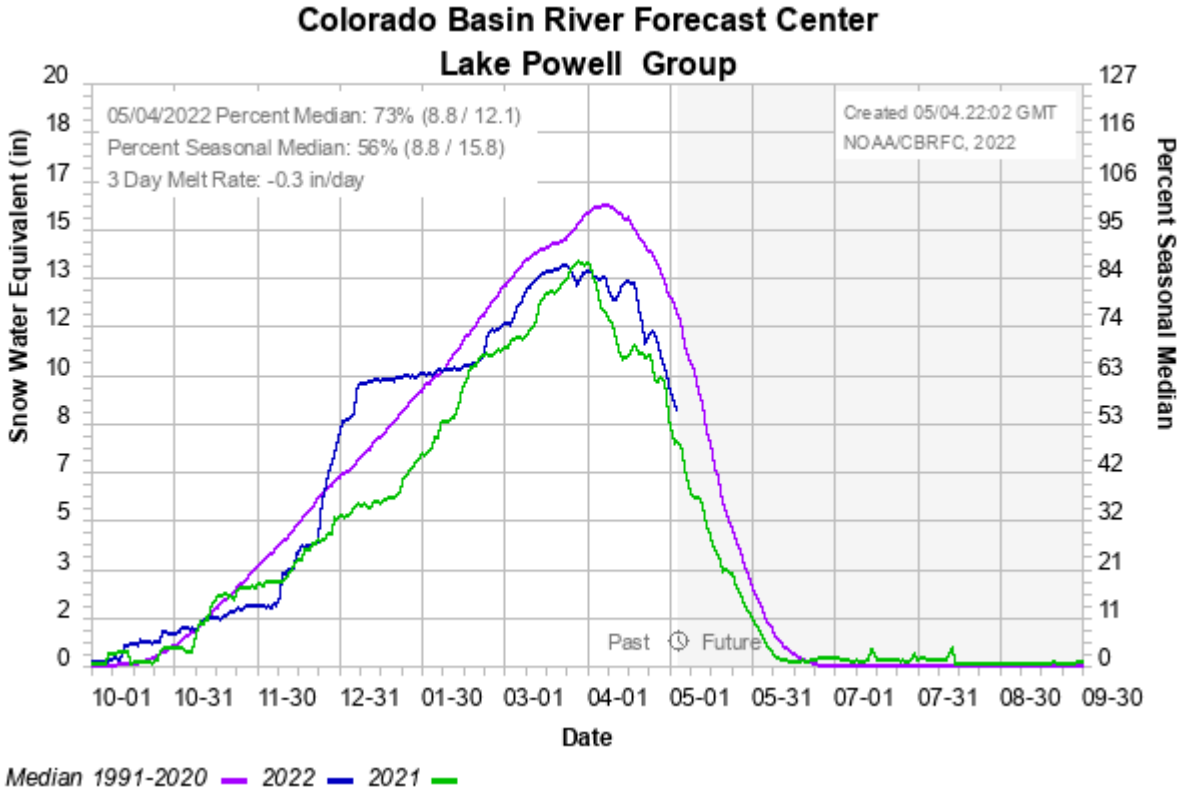
Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

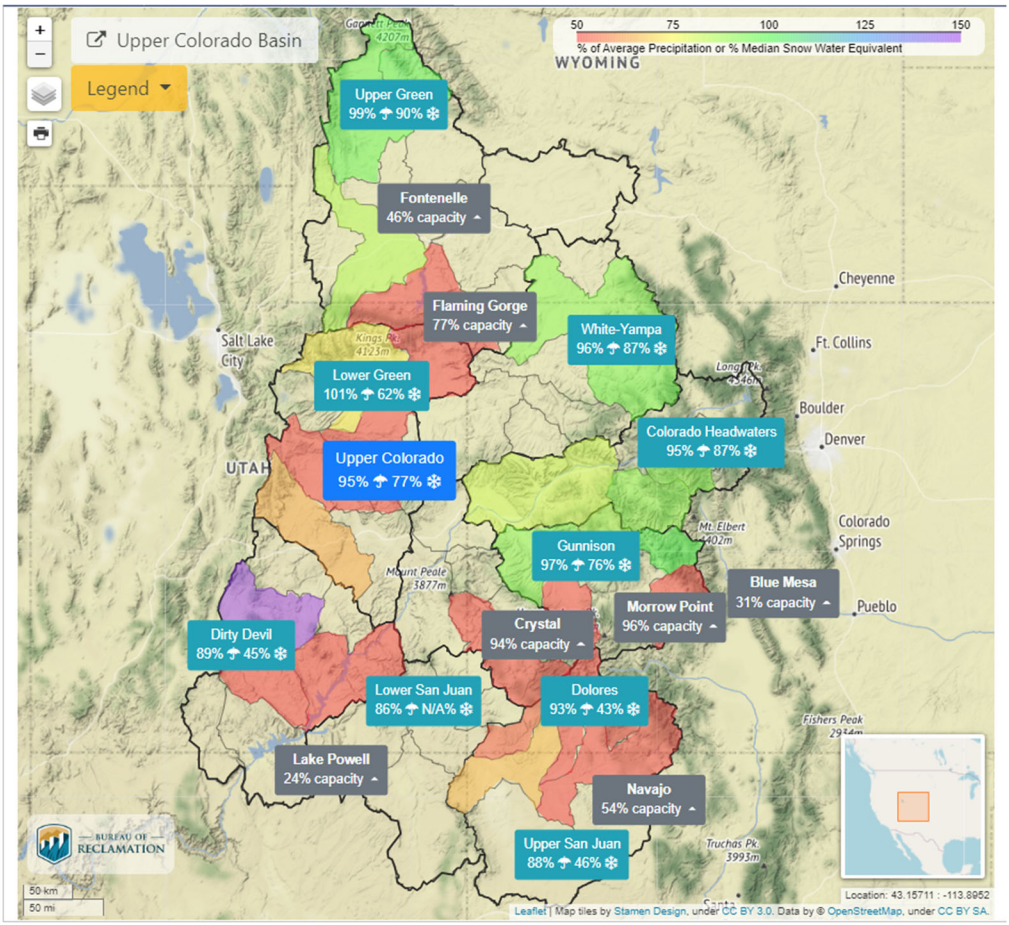
Monthly Precipitation - April 2022

Averaged by Basin

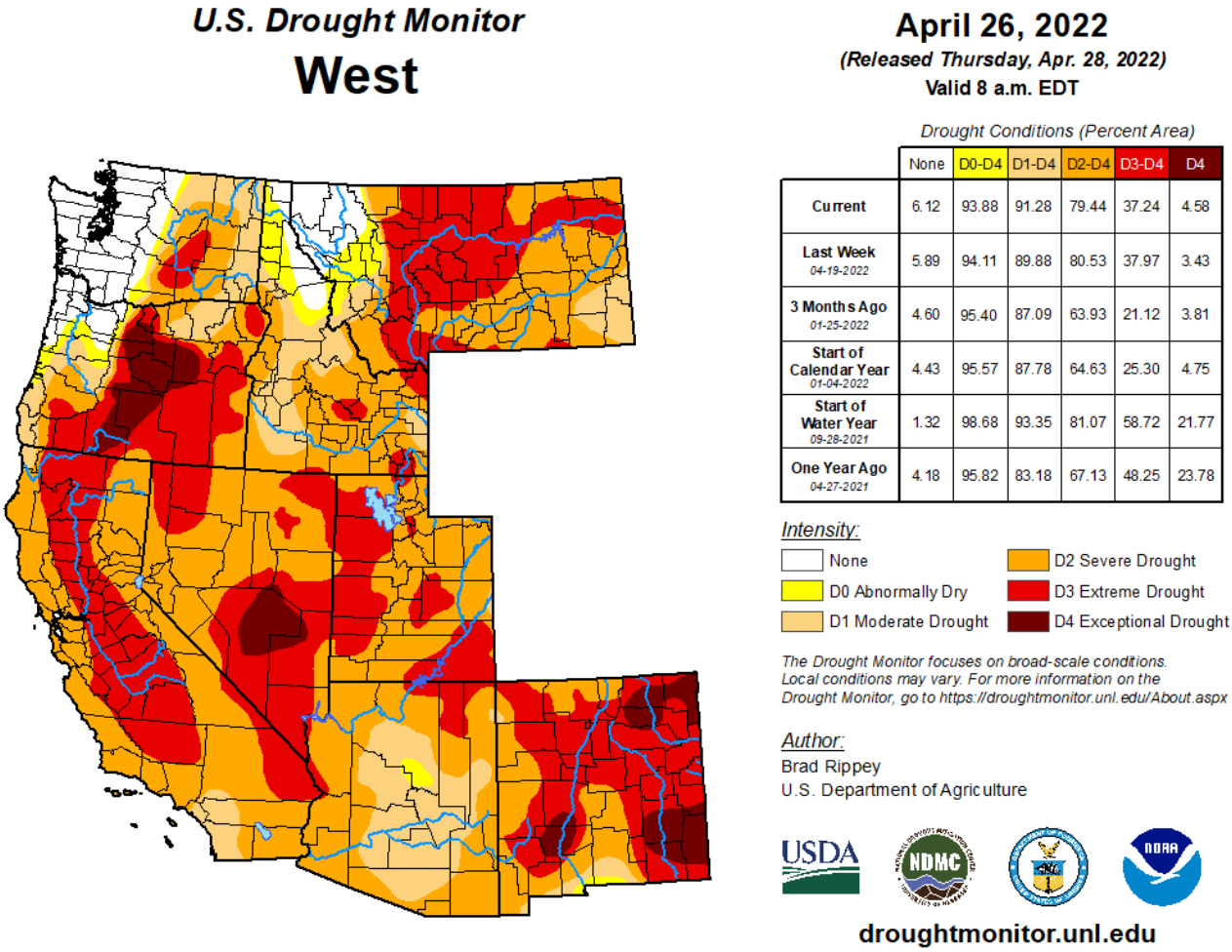


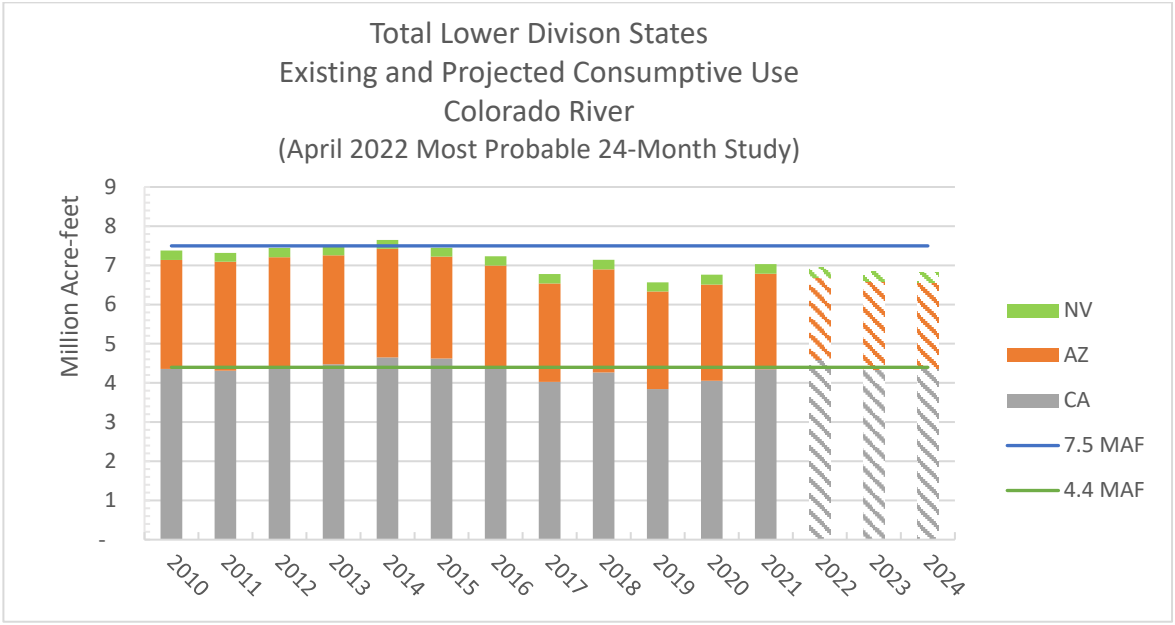
Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov


Colorado Basin River Forecast Center
Lake Powell Group
05/04/2022 Percent Median: 73% (8.8 / 12.1)
Percent Seasonal Median: 56% (8.8 / 15.8)
3 Day Melt Rate: -0.3 in/day
Created 05/04.22:02 GMT
NOAA/CBRFC, 2022
Past
Future
Snow Water Equivalent (in)
Percent Seasonal Median
Date
10-01
10-31
11-30
12-31
01-30
03-01
04-01
05-01
05-31
07-01
07-31
08-30
09-30
Median 1991-2020
2022
2021

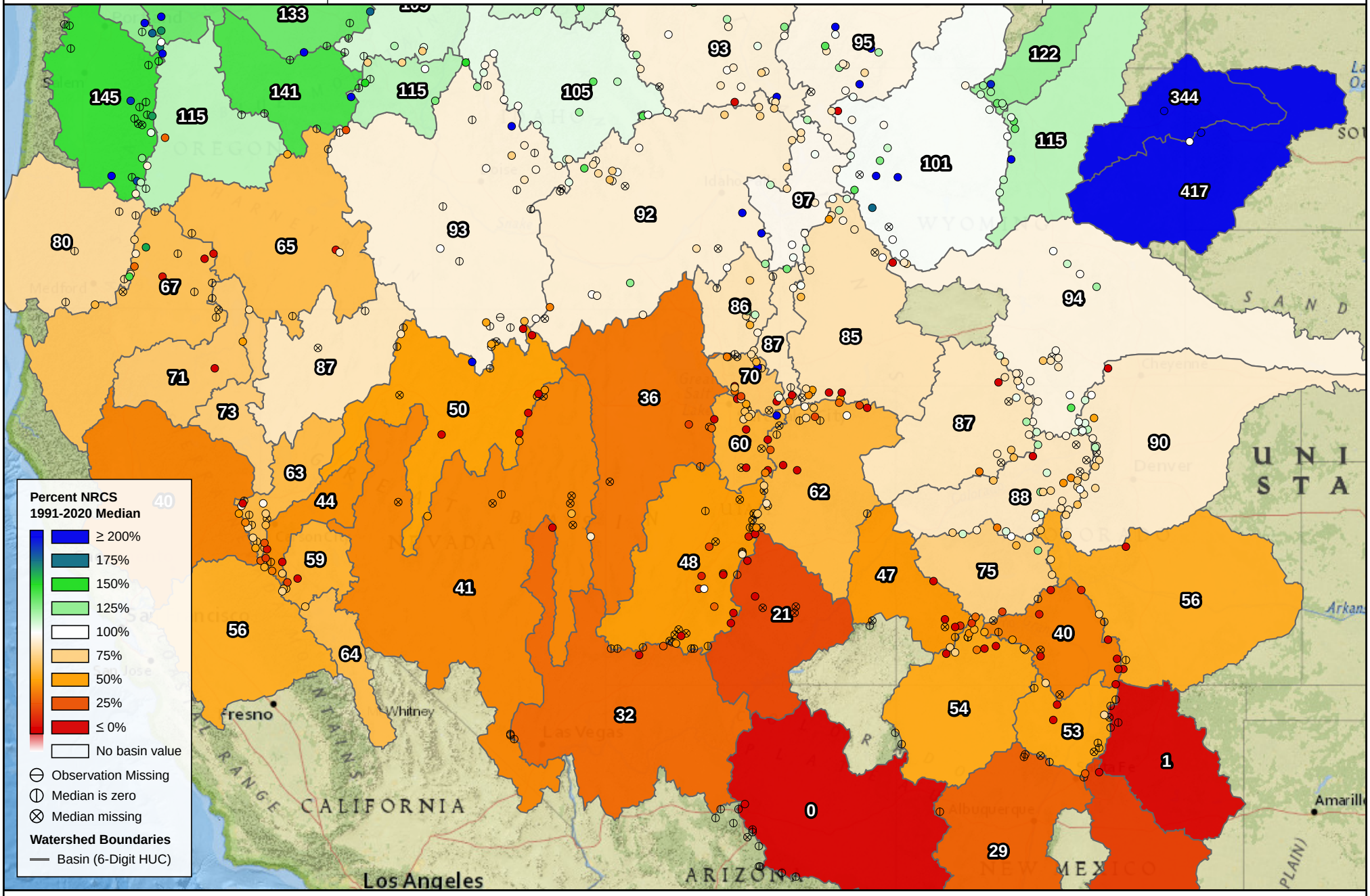

Upper Colorado Basin
Legend
% of Average Precipitation or % Median Snow Water Equivalent
WYOMING
Upper Green
99% 90%
Fontenelle
46% capacity
Flaming Gorge
77% capacity
White-Yampa
96% 87%
Lower Green
101% 62%
Upper Colorado
95% 77%
Colorado Headwaters
95% 87%
Gunnison
97% 76%
Blue Mesa
31% capacity
Morrow Point
96% capacity
Crystal
94% capacity
Dirty Devil
89% 45%
Lower San Juan
86% N/A%
Dolores
93% 43%
Lake Powell
24% capacity
Navajo
54% capacity
Upper San Juan
88% 46%
Cheyenne
Ft. Collins
Boulder
Denver
Colorado Springs
Pueblo
Salt Lake City
UTAH
BUREAU OF RECLAMATION
Leaflet | Map tiles by Stamen Design, under CC BY 3.0. Data by © OpenStreetMap, under CC BY SA.

USDA United States Drought Monitor Map





Snow Water Equivalent	Percent NRCS 1991-2020 Median	May 1st, 2022



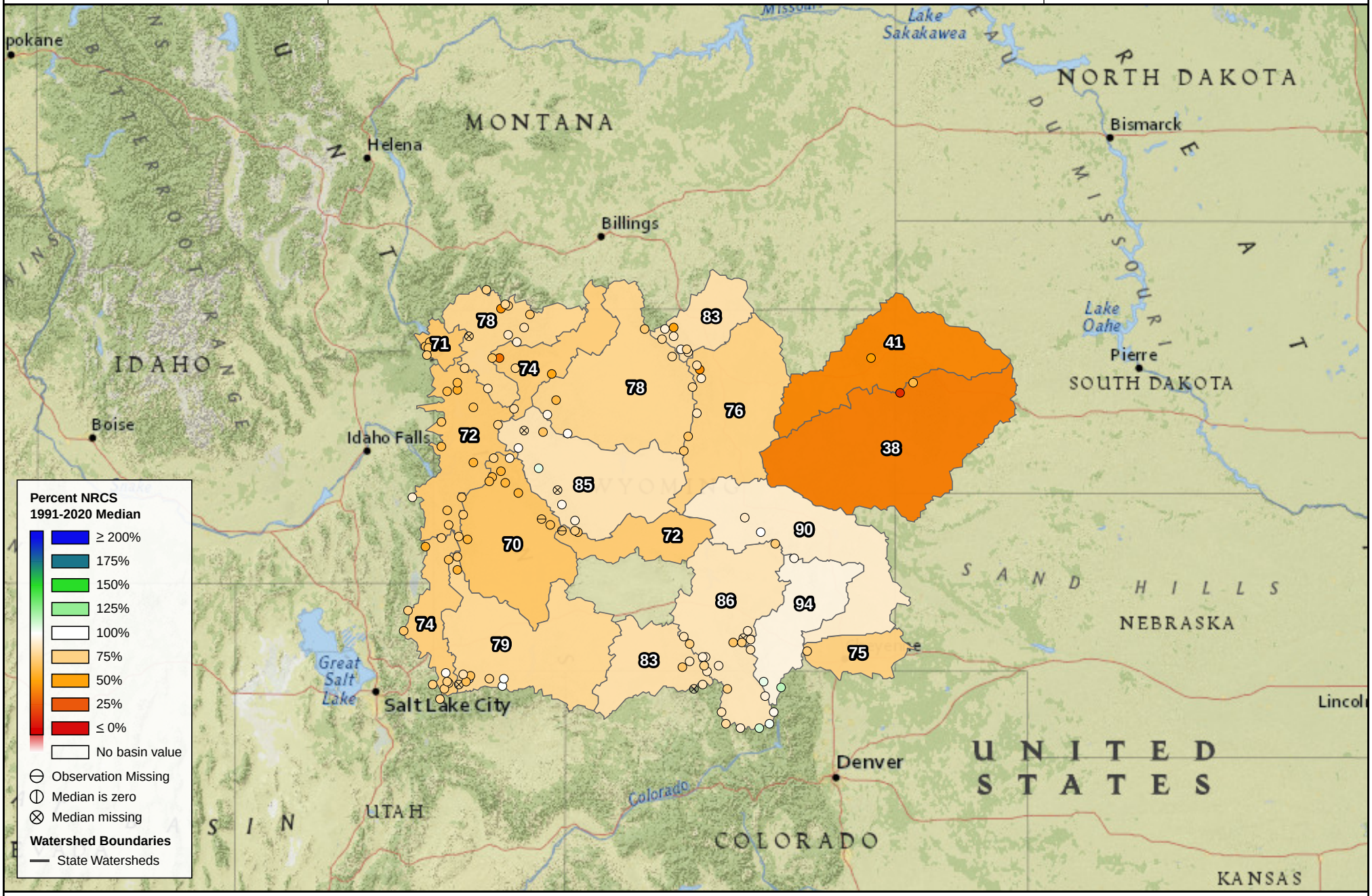
USDA Natural Resources Conservation Service
United States Department of Agriculture

N

0 30 60 120 180 240 300 Miles

Created 5-04-2022

Snow Water Equivalent	Percent NRCS 1991-2020 Median	April 1st, 2022

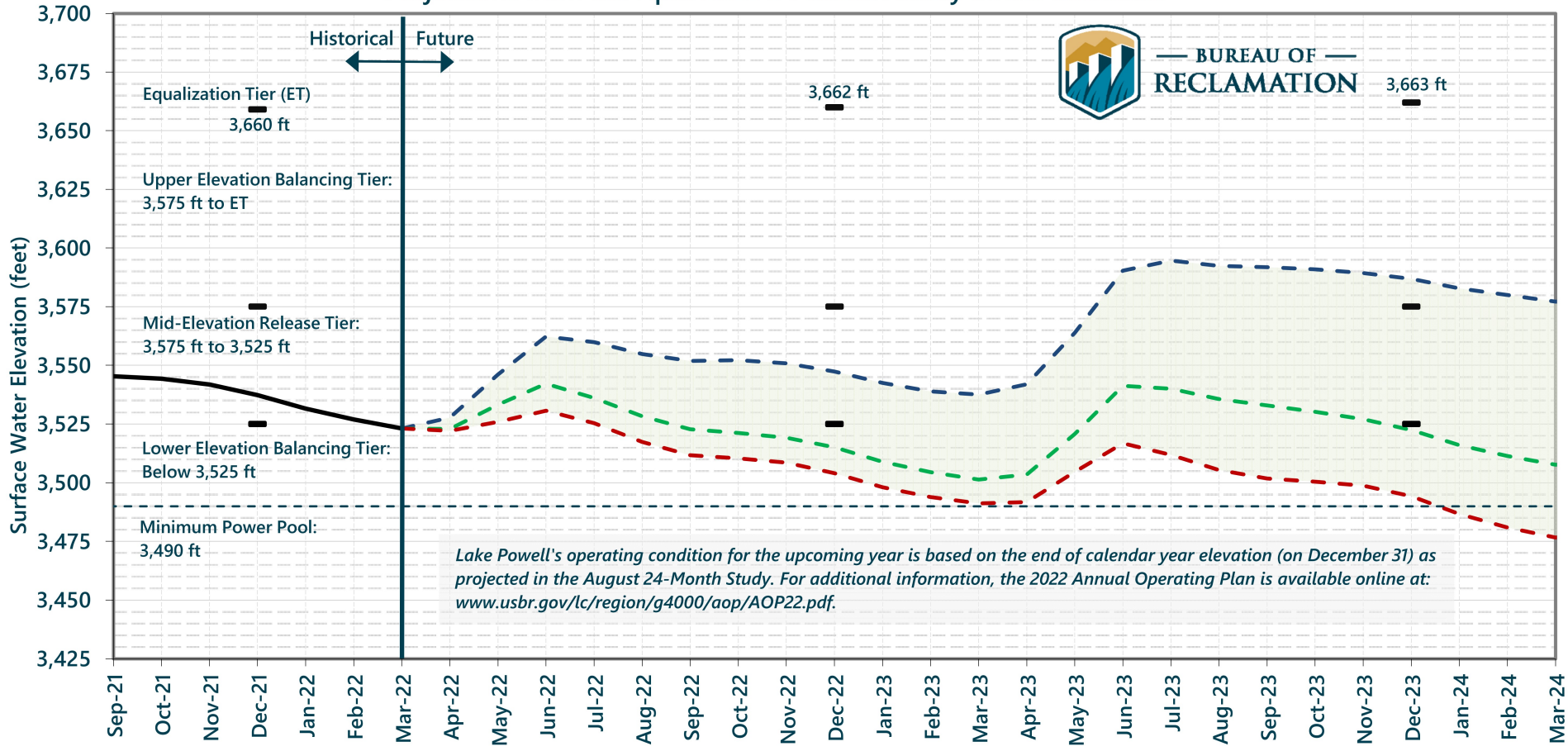


USDA Natural Resources Conservation Service
United States Department of Agriculture

Created 5-04-2022

Lake Powell End of Month Elevations

Projections from the April 2022 24-Month Study Inflow Scenarios

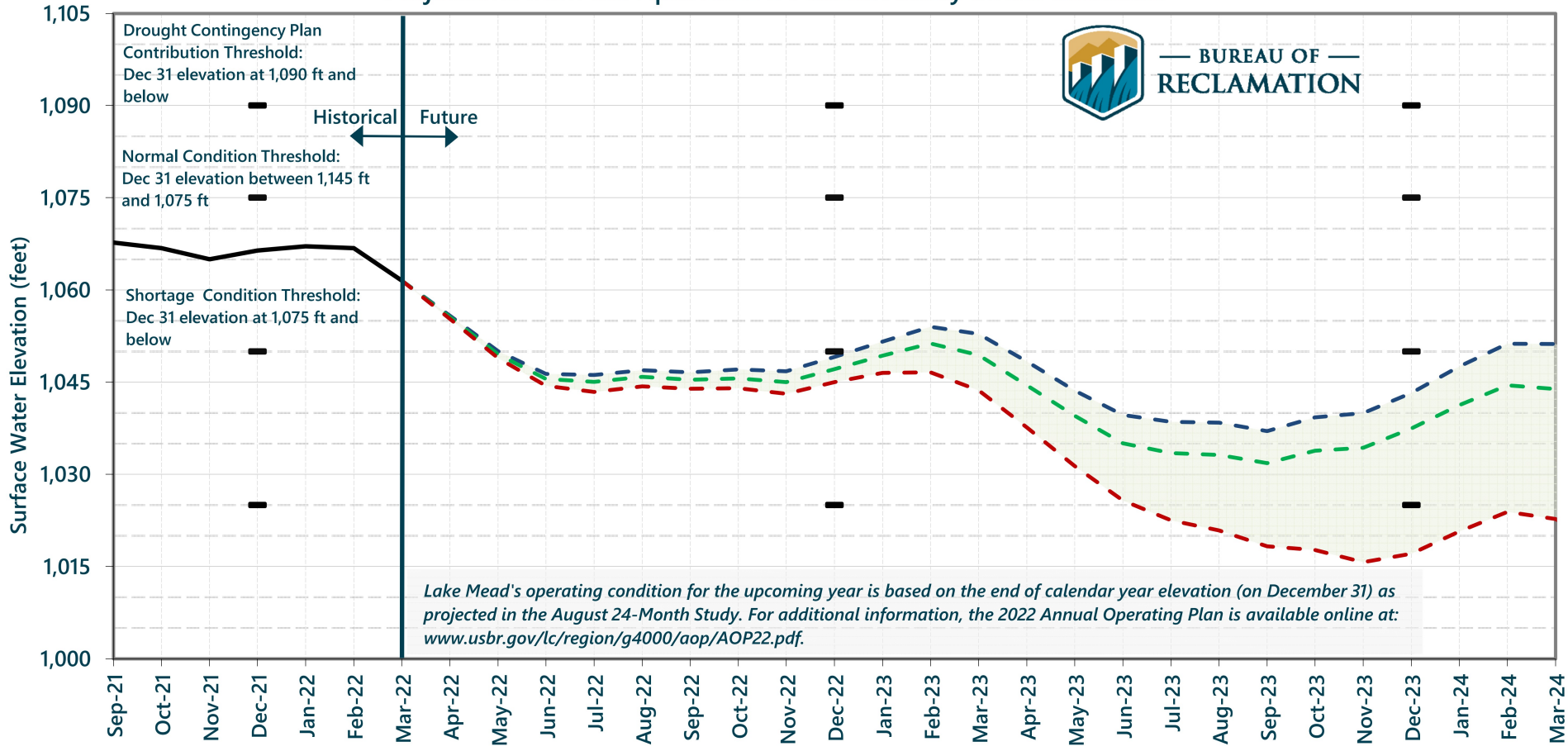


- April 2022 Probable Maximum Inflow with a Lake Powell release of 7.48 maf in WY 2022 and 7.48 maf in WY 2023
- April 2022 Most Probable Inflow with a Lake Powell release of 7.48 maf in WY 2022 and 7.50 maf in WY 2023
- April 2022 Probable Minimum Inflow with a Lake Powell release of 7.48 maf in WY 2022 and 7.00 maf in WY 2023
- Historical Elevations

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

Lake Mead End of Month Elevations

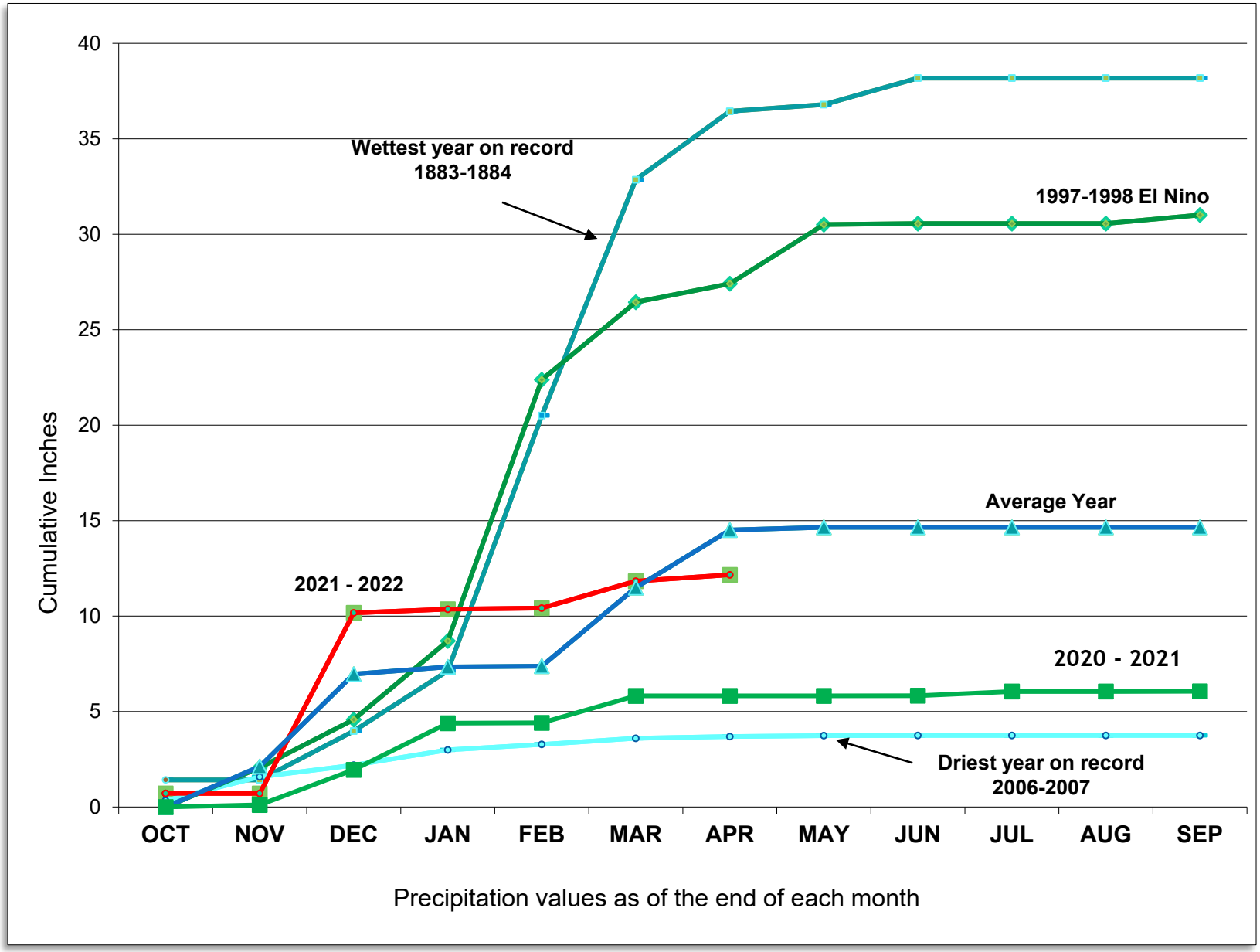
Projections from the April 2022 24-Month Study Inflow Scenarios



- April 2022 Probable Maximum Inflow with a Lake Powell release of 7.48 maf in WY 2022 and 7.48 maf in WY 2023
- April 2022 Most Probable Inflow with a Lake Powell release of 7.48 maf in WY 2022 and 7.50 maf in WY 2023
- April 2022 Probable Minimum Inflow with a Lake Powell release of 7.48 maf in WY 2022 and 7.00 maf in WY 2023
- Historical Elevations

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

Los Angeles Civic Center Precipitation

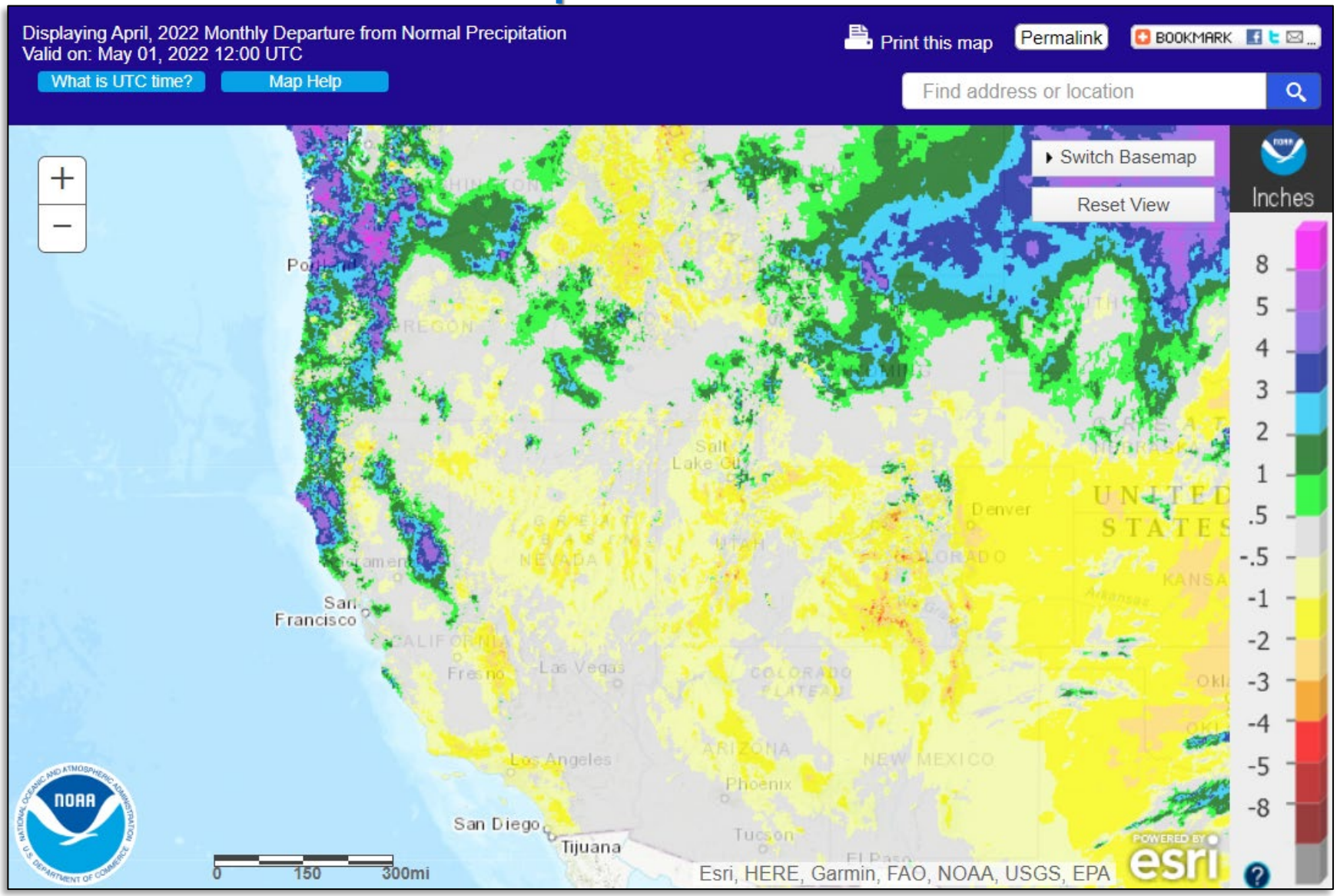


Precipitation at Six Major Stations in Southern California

From October 1, 2021 to April 30, 2022

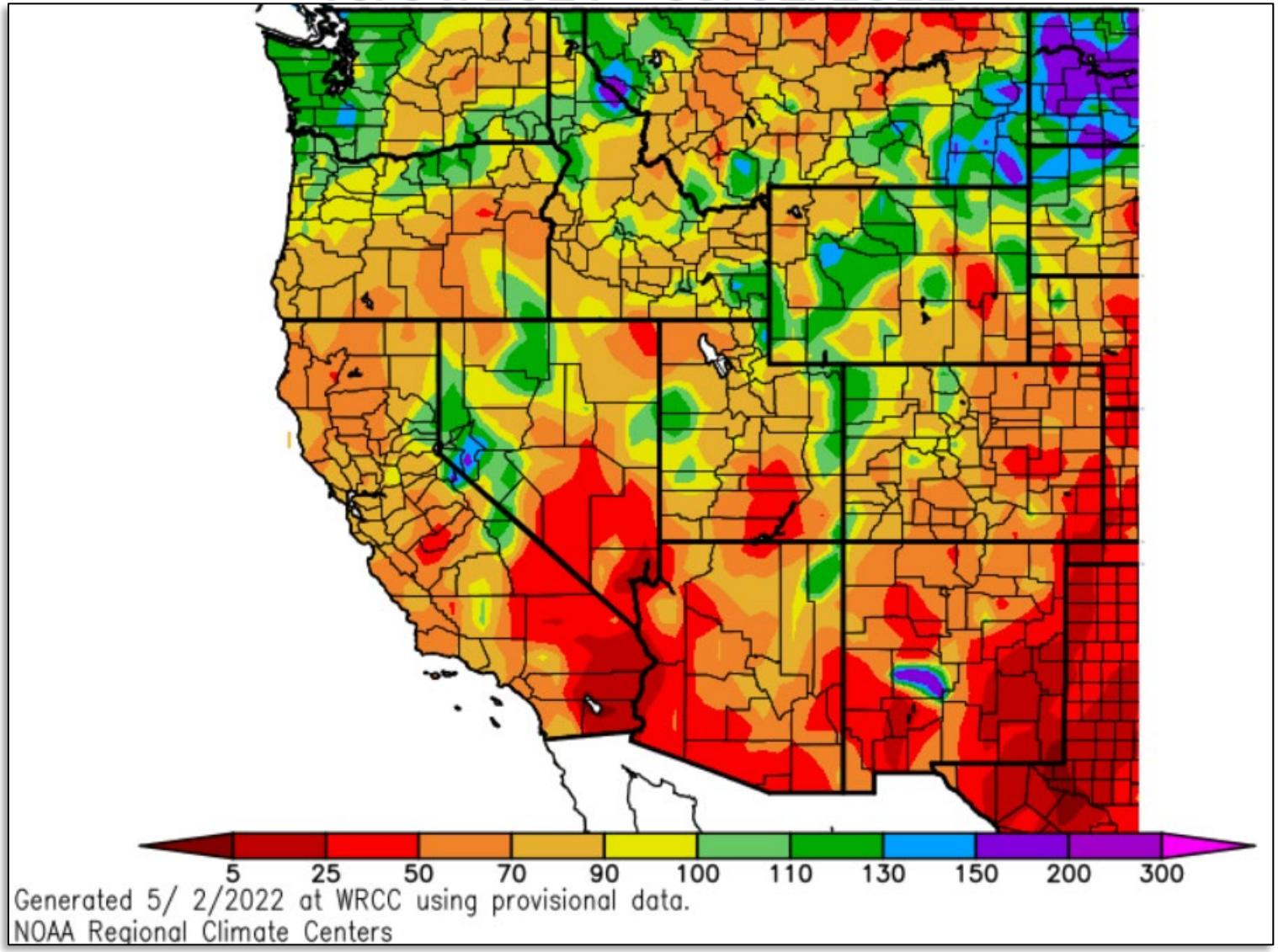
Station	Precipitation in inches		Average to Date	Percent of Average
	Apr	Oct 1 to Apr 30		
San Luis Obispo	0.30	9.11	21.57	42%
Santa Barbara	0.25	4.76	17.07	28%
Los Angeles	0.33	12.16	14.49	84%
San Diego	0.02	6.08	9.64	63%
Blythe	0.00	0.23	2.54	9%
Imperial	0.00	0.02	2.16	1%

Monthly Departure From Normal Precipitation (inches)
April 2022



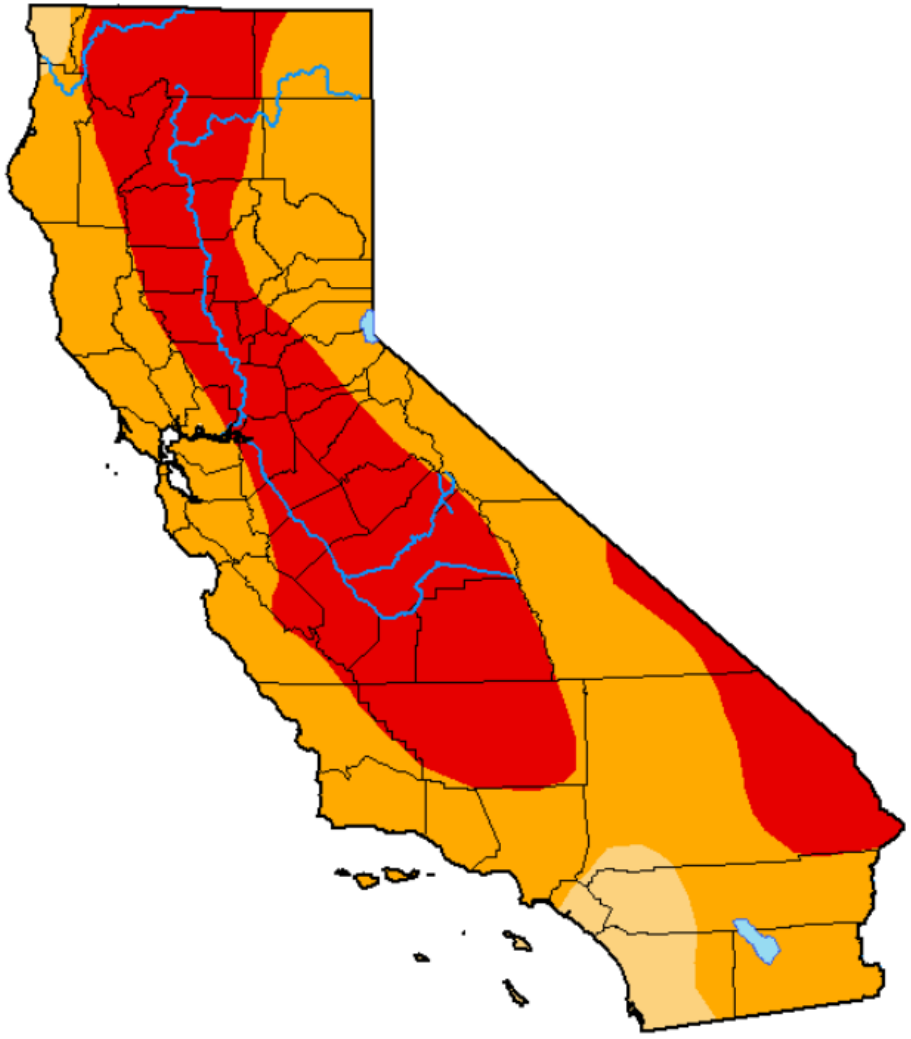
NOAA – National Weather Service
https://water.weather.gov/precip/

Percent of Average Precipitation (%)
10/01/2021 - 05/02/2022



Western Regional Climate Center
https://wrcc.dri.edu/cgi-bin/anomimage.pl?wrc6mPpct.png

U.S. Drought Monitor
California



April 26, 2022
(Released Thursday, Apr. 28, 2022)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	95.18	40.56	0.00
Last Week *04-19-2022*	0.00	100.00	100.00	95.18	40.81	0.00
3 Months Ago *01-25-2022*	0.00	100.00	99.25	66.39	1.39	0.00
Start of Calendar Year *01-04-2022*	0.00	100.00	99.30	67.62	16.60	0.84
Start of Water Year *09-28-2021*	0.00	100.00	100.00	93.93	87.88	45.66
One Year Ago *04-27-2021*	0.00	100.00	97.51	87.95	52.86	5.36

Intensity:

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

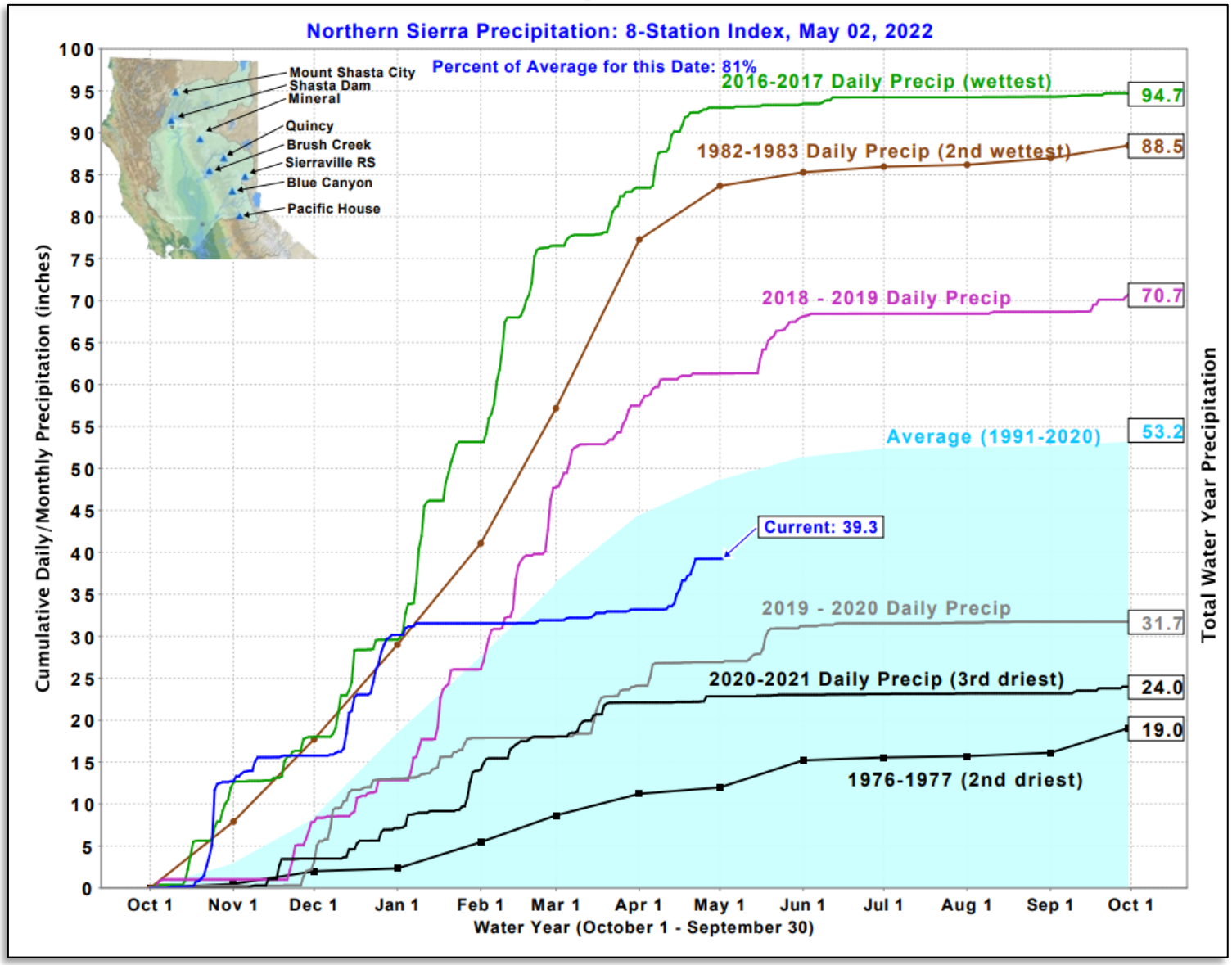
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:
Brad Rippey
U.S. Department of Agriculture

droughtmonitor.unl.edu

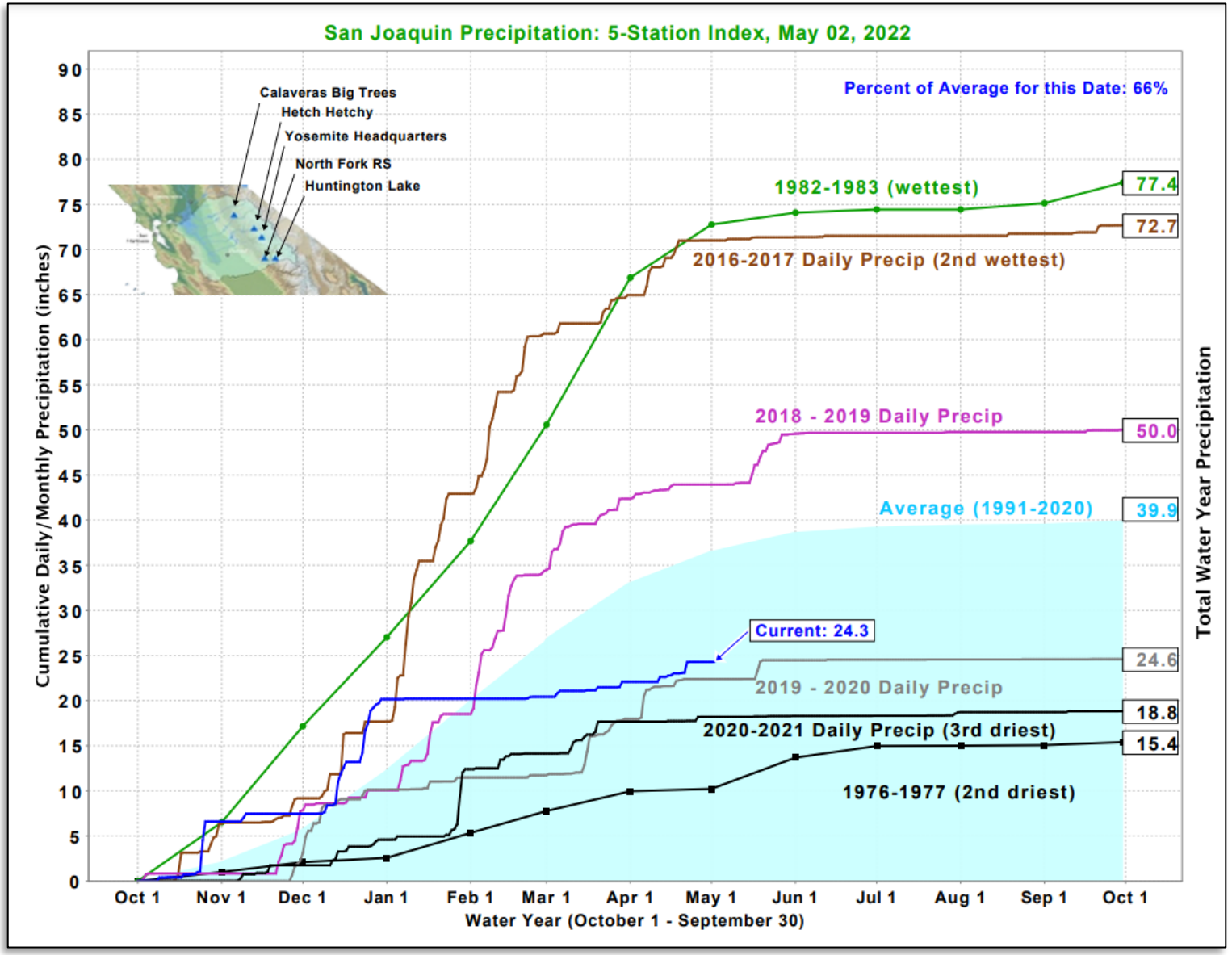
https://droughtmonitor.unl.edu/Maps/MapArchive.aspx

Northern Sierra Precipitation: 8 Station Index



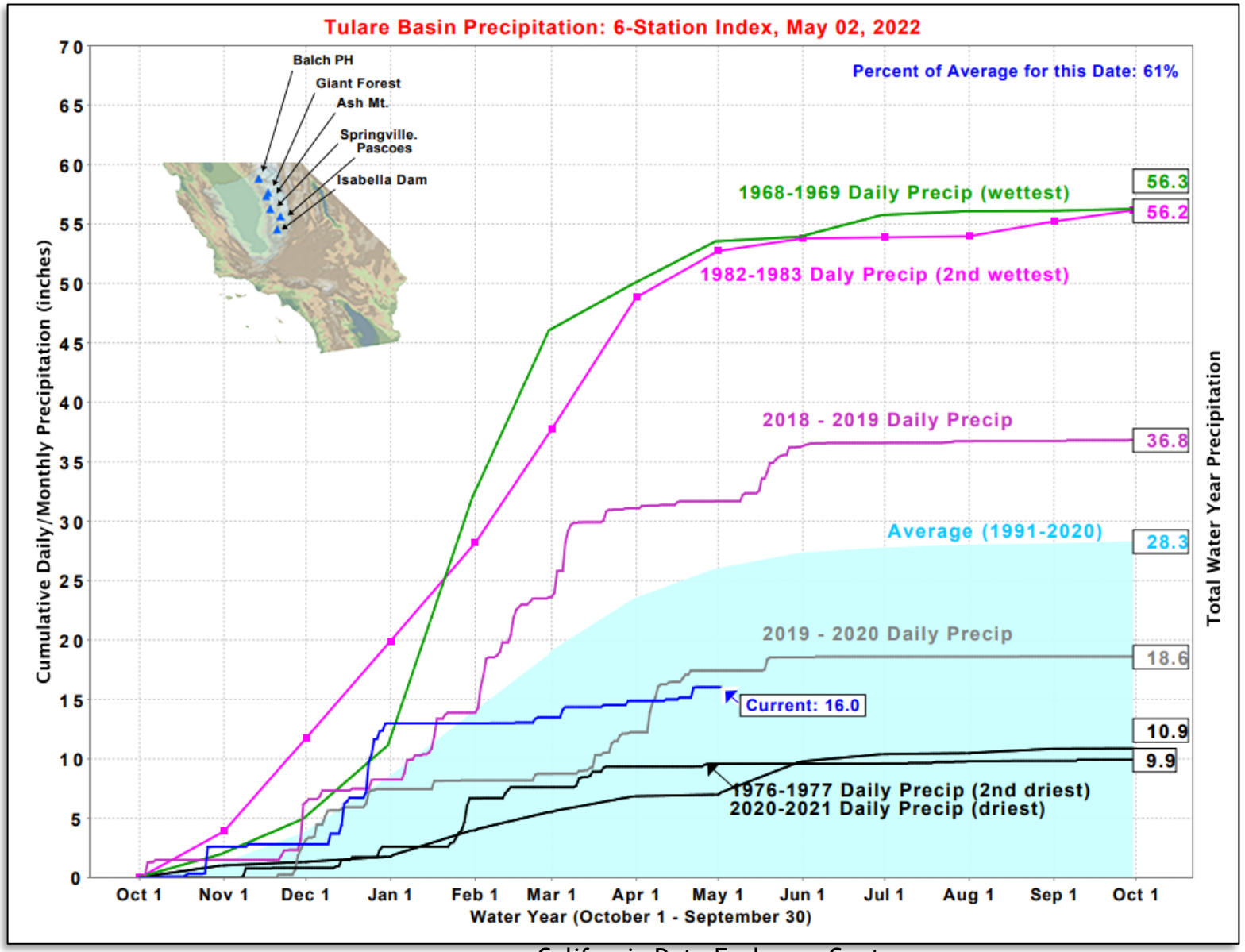
California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_ESI.pdf

San Joaquin Precipitation: 5 Station Index



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

Tulare Basin Precipitation: 6 Station Index



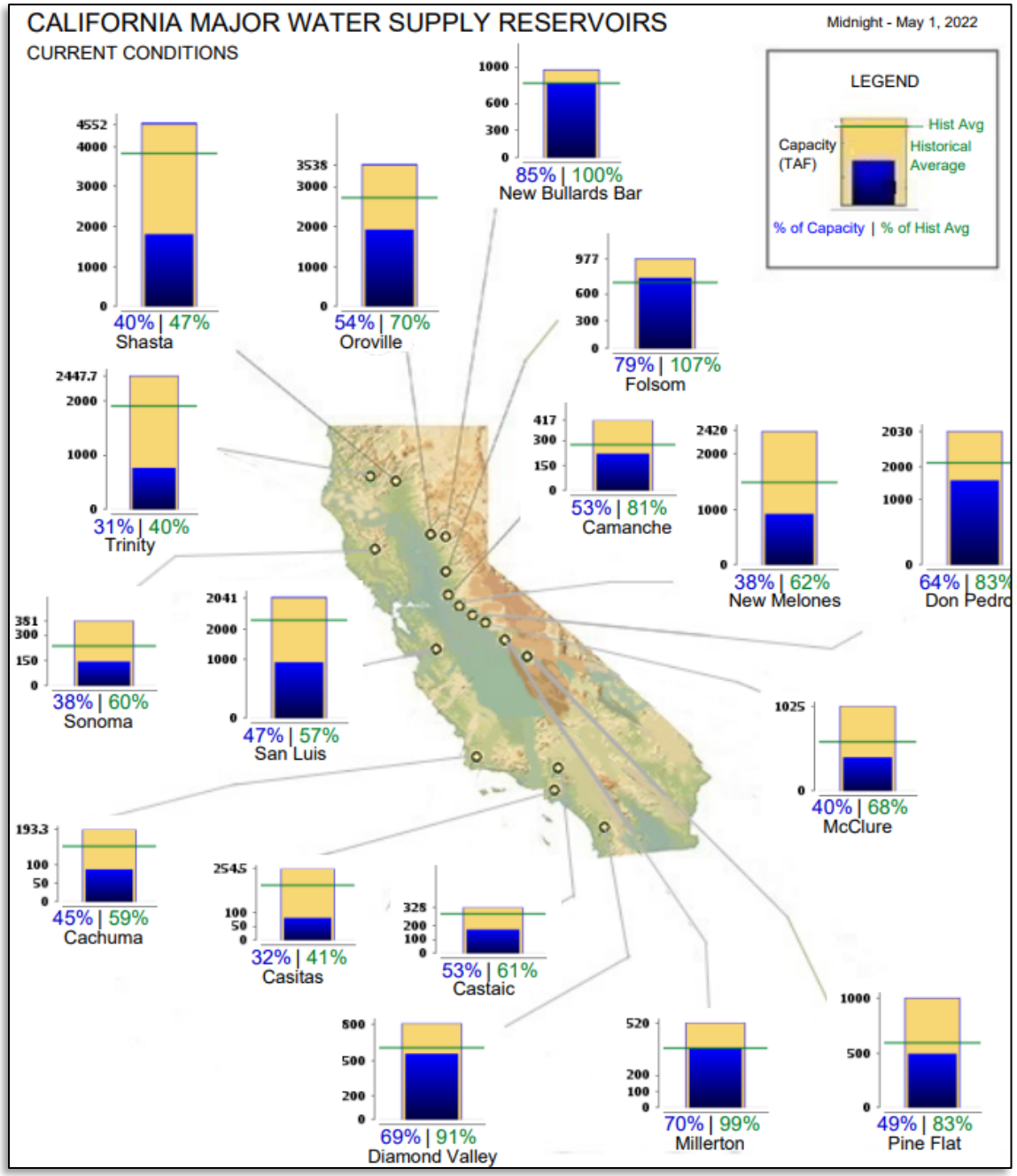
California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_TSI.pdf

Comparison of SWP Water Storage

Reservoir	Capacity	2021 Storage (acre-feet) As of 1-May	2021 Storage (acre-feet) % of Cap.	2022 Storage (acre-feet) As of 1-May	2022 Storage (acre-feet) % of Cap.
Frenchman	55,475	36,152	65%	39,493	71%
Lake Davis	84,371	51,979	62%	50,759	60%
Antelope	22,564	16,267	72%	23,144	103%
Oroville	3,553,405	1,485,798	42%	1,926,698	54%
TOTAL North	3,715,815	1,590,196	43%	2,040,094	55%
Del Valle	39,914	38,239	96%	39,886	100%
San Luis	2,027,835	1,023,878	50%	950,833	47%
Pyramid	169,901	164,675	97%	162,622	96%
Castaic	319,247	247,120	77%	170,698	53%
Silverwood	74,970	66,621	89%	67,484	90%
Perris	132,614	118,401	89%	103,066	78%
TOTAL South	2,764,481	1,658,934	60%	1,494,589	54%
TOTAL SWP	6,480,296	3,249,130	50%	3,534,683	55%

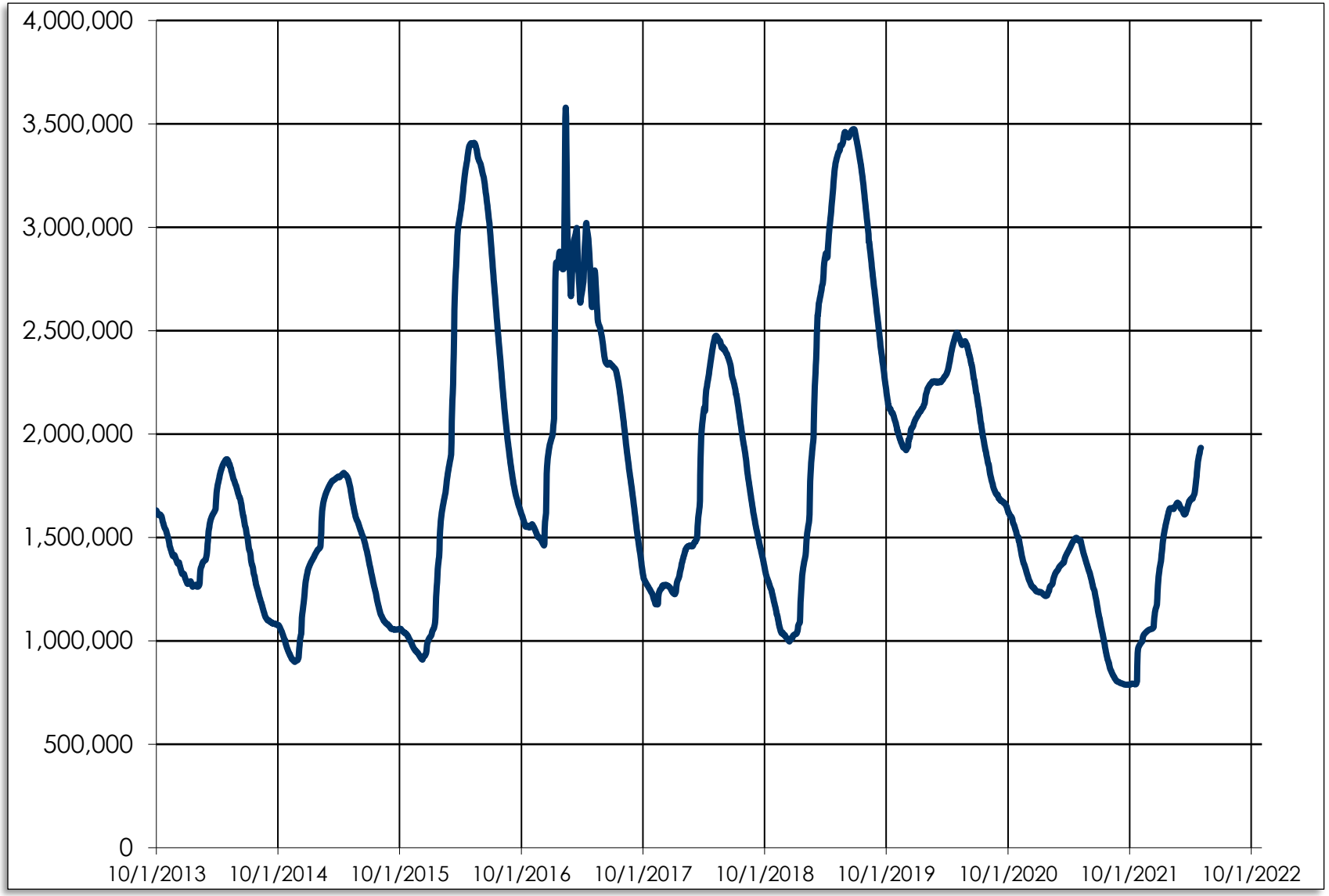
As of March 18, 2022, the Table A allocations for SWP contractors is 5%.

Reservoir Current Conditions as of 05/02/2022



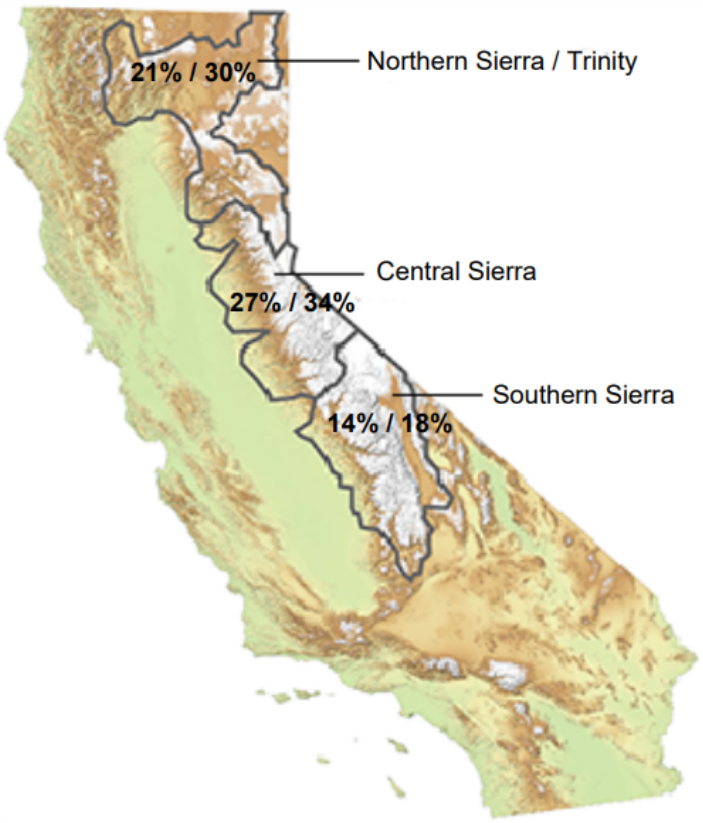
California Data Exchange Center
https://cdec.water.ca.gov/reportapp/javareports?name=rescond.pdf

Oroville Storage (acre-feet)
October 1, 2013 – May 3, 2022



Statewide Summary of Snow Water Content as of 05/02/2022

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



NORTH	
Data as of May 2, 2022	
Number of Stations Reporting	28
Average snow water equivalent (Inches)	5.9
Percent of April 1 Average (%)	21
Percent of normal for this date (%)	30

CENTRAL	
Data as of May 2, 2022	
Number of Stations Reporting	44
Average snow water equivalent (Inches)	8.1
Percent of April 1 Average (%)	27
Percent of normal for this date (%)	34

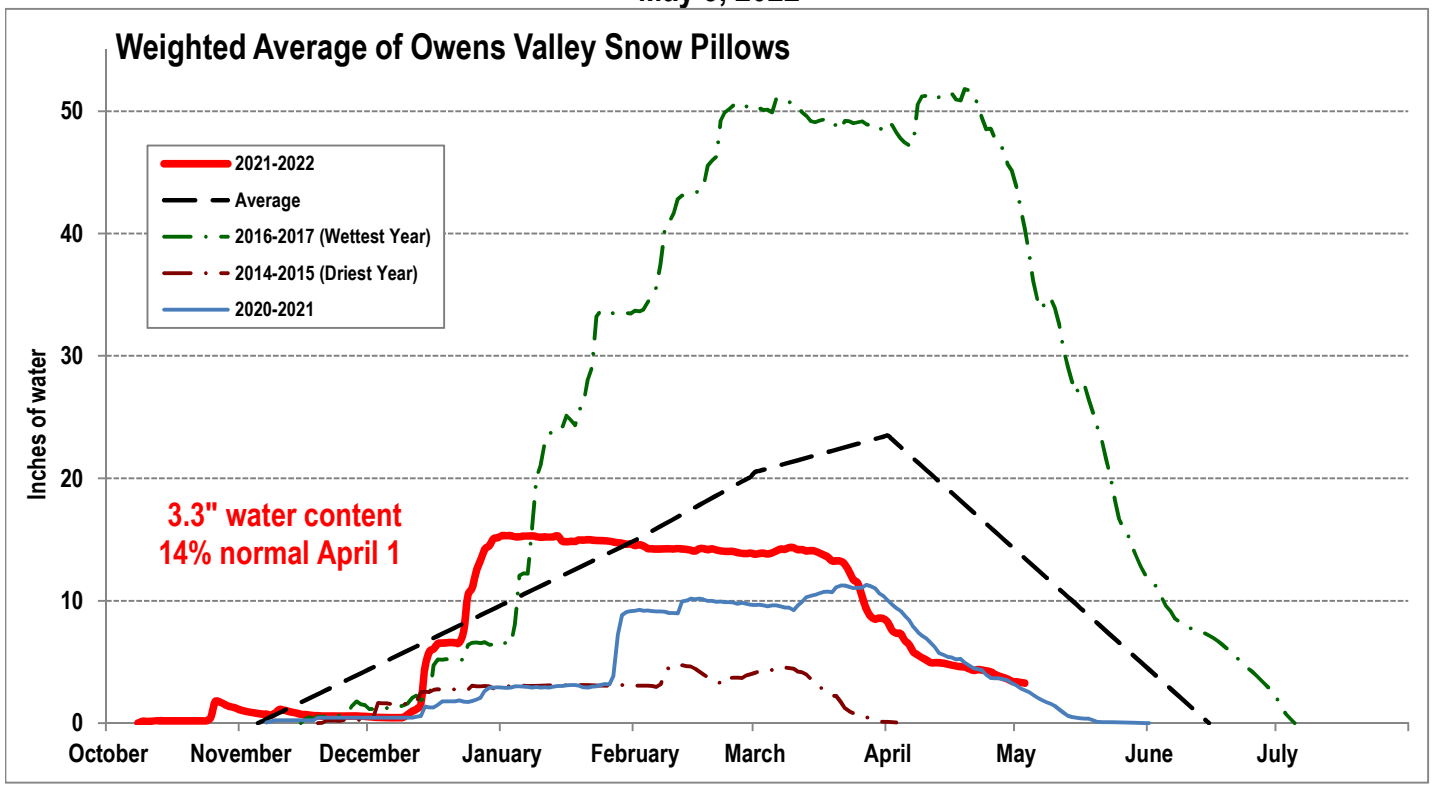
SOUTH	
Data as of May 2, 2022	
Number of Stations Reporting	24
Average snow water equivalent (Inches)	3.5
Percent of April 1 Average (%)	14
Percent of normal for this date (%)	18

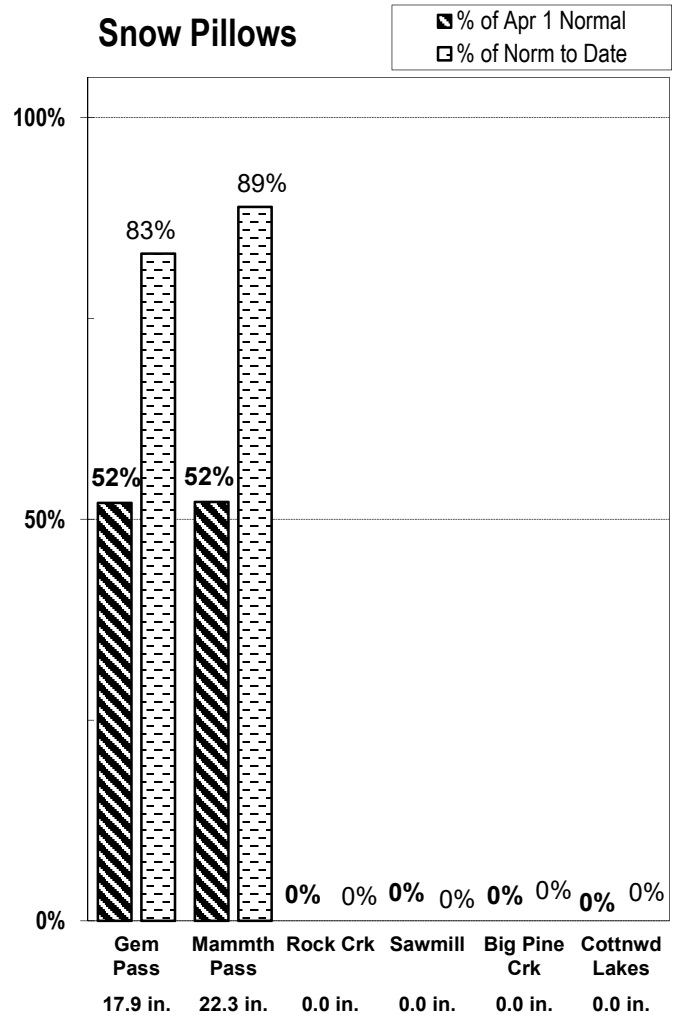
STATE	
Data as of May 2, 2022	
Number of Stations Reporting	96
Average snow water equivalent (Inches)	6.3
Percent of April 1 Average (%)	22
Percent of normal for this date (%)	29

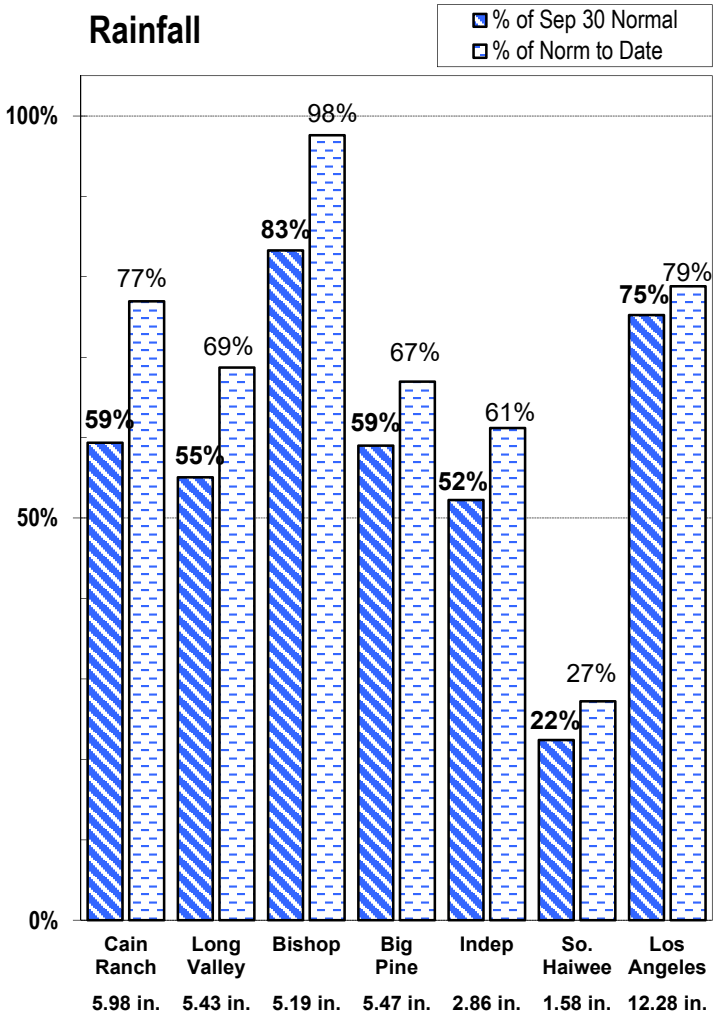
Statewide Average: 22% / 29%

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

EASTERN SIERRA
CURRENT PRECIPITATION CONDITIONS
May 3, 2022







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

United States Department of the Interior
BUREAU OF RECLAMATION
125 South State Street, Room 8100
Salt Lake City, UT 84138-1102

IN REPLY REFER TO:
UC-100
2.1.1.04

Memorandum

To: Daniel Picard, Deputy Regional Director
Upper Colorado Basin - Interior Region 7, Bureau of Reclamation

From: Wayne G. Pullan
Chair, Glen Canyon Leadership Team
Acting Secretary's Designee to the Glen Canyon Dam
Adaptive Management Program

Subject: Approval of Recommendation for Macroinvertebrate Production Flow Releases at Glen Canyon Dam in Water Year 2022

On April 8, 2022, the Glen Canyon Planning/Implementation Team (PI Team) provided a non-consensus recommendation to conduct Experimental Macroinvertebrate Production Flow releases (Bug Flows) at Glen Canyon Dam from May 1 through August 31, 2022 (Attachment - *Final Recommendation to Implement Macroinvertebrate Production Flow Releases ("Bug Flows") at Glen Canyon Dam May – August 2022*). The recommendation was developed to implement the provisions of the 2016 *Record of Decision for the Glen Canyon Dam Long Term Experimental and Management Plan Final Environmental Impact Statement* (LTEMP ROD) concerning annual planning for flow-based experiments.

The LTEMP ROD specifies the representation requirements for planning experiments at Glen Canyon Dam and is based on past successful planning and implementation of flow-based experiments. The PI Team includes technical representatives from the Bureau of Reclamation (Reclamation), the National Park Service (NPS), the U.S. Fish and Wildlife Service (FWS), the Bureau of Indian Affairs (BIA), the U.S. Geological Survey's (USGS) Grand Canyon Monitoring and Research Center (GCMRC), Western Area Power Administration (WAPA), the Arizona Game and Fish Department (AZGFD), the seven Colorado River Basin States (States), and the Upper Colorado River Commission (UCRC). The Glen Canyon Leadership Team (Leadership Team) is made up of decision makers from these same agencies.

The LTEMP ROD further requires that Reclamation notify Traditionally Associated Tribes (Tribes) at least 30 days in advance of planned experimental flows. On March 30, 2022, notification of the possible Bug Flow experiment and offer for consultation was emailed to the Tribes and parties to the LTEMP National Historic Preservation Act Section 106 Programmatic

Agreement. It is my understanding that, to date, no input from the Tribes or requests for consultation have been received by Reclamation.

The Leadership Team met via webinar on April 11, 2022, to review and consider the PI Team's recommendation, including the assessment of key resources that may be impacted or affected by Bug Flows and the experiment monitoring plan. Leadership Team members voiced concerns related to operational uncertainties and the potential for adverse effects to the Basin Fund. Ongoing drought conditions and low lake levels have resulted in significant uncertainty in WY 2022 hydrology, annual and monthly operations, and resource conditions. As a result, the PI Team has recommended ongoing coordination throughout implementation of the Bug Flows experiment to evaluate whether new conditions or unanticipated negative impacts have occurred or are likely to occur. Using forecasted energy prices obtained in March 2022, WAPA estimates that the expense of a Bug Flows experiment in 2022 would be approximately $1.4M. While these costs would result in a short-term impact to the Basin Fund, WAPA would ultimately receive a credit as if the funds had been returned to the U.S. Treasury to repay construction debt (i.e. constructive return credit).

Given the best available science, current assessment of resources, and the inclusion of potential off-ramps should unanticipated negative impacts occur, I have decided to approve the recommendation to conduct a Bug Flows experiment starting on May 1 and running through August 31, 2022. The Department of the Interior will consider PI Team recommendations to terminate implementation but retains discretion to decide how best to accomplish operations and experiments pursuant to the ROD and other binding obligations.

This will be the fourth implementation of the Bug Flows experiment conducted under the 2016 LTEMP ROD and demonstrates the utility of the LTEMP in allowing for experiments when conditions warrant and there would not be unacceptable adverse impacts to key resources. The approved Bug Flows will consist of steady weekend releases from Glen Canyon Dam that provide favorable conditions for insects to lay eggs along the Colorado River margins and slightly higher fluctuating releases during the weekdays designed to prevent the eggs from drying out. Weekend releases will be 750 cubic feet per second (cfs) higher than weekday lows, consistent with the H750 hydrograph evaluated in the technical report (Attachment). This experiment is expected to have positive benefits to the food base of the aquatic and terrestrial ecosystems downstream of Glen Canyon Dam. The recommended Bug Flow experiment will provide resource benefits in the near term and will also provide important scientific information to be used in future decision making. The Bug Flow experiment is consistent with applicable laws concerning the operation of Glen Canyon Dam and will satisfy the Department of the Interior's (Department) goal to ensure effective and coordinated implementation of important research that the Department is undertaking as part of the Glen Canyon Dam Adaptive Management Program.

This is the fifth full year of implementing the process for annual experimental planning under the LTEMP ROD, which requires the Department to "schedule implementation / planning meetings or calls with Interior bureaus (USGS, NPS, FWS, BIA, and Reclamation), WAPA, AZGFD, and one liaison from each Basin State and from the UCRC, as needed or requested by the participants." At the conclusion of the experiment, the PI Team will review the planning process, implementation, and monitoring activities and develop a list of "lessons learned" to inform potential future experiments and experimental planning. In accordance with the LTEMP, the Department may make the decision to conduct future flow-based experiments (e.g., High Flow Experiments, Bug Flows, Trout Management Flows, and Low Summer Flows) at Glen Canyon Dam if it is determined that there are no unacceptable adverse impacts on other resource conditions. For future experimental planning, the Department welcomes any additional input from you and other Leadership Team members as to whether this or another process should be used to satisfy the coordination and communication process of the LTEMP ROD.

I would like to personally thank both the Leadership and the Planning/Implementation Teams for their dedication and continued work that has resulted in this recommendation. The individual efforts of the team members, especially the GCMRC is greatly appreciated. The coordination among the team members has been instrumental in making this process a success and has allowed the Department to continue its commitment to protect and improve the irreplaceable resources at and below Glen Canyon Dam.

Attachment - *Final Recommendation to Implement Macroinvertebrate Production Flow ("Bug Flows") Releases at Glen Canyon Dam in Water Year 2022*

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

APR 0 8 2022

Mr. Peter Nelson
Governor's Representative
State of California
770 Fairmont Avenue, Suite 100
Glendale, California 91203

Dear Mr. Nelson:

As all who rely on the Colorado River are well aware, the Colorado River Basin is experiencing prolonged drought, low runoff conditions, and depleted storage in Lake Powell and Lake Mead. Recent studies indicate we are experiencing the driest conditions in the Basin in more than 1,200 years. These unprecedented challenges and changes in the Basin's runoff began more than two decades ago. The best available science indicates that the effects of climate change will continue to adversely impact the basin.

In light of the continuing drought and low runoff conditions, in recent weeks technical staff from the Bureau of Reclamation, along with Interior leadership, have communicated our concerns with projected runoff in the Colorado River Basin and the risk of Lake Powell and Lake Mead declining to critically-low elevations over the next 24 months. Our staff has worked diligently to explain the basis for these risks and concerns with representatives of the Basin's Tribal nations, other federal and state agencies, the Republic of Mexico, water users, and non-Governmental Organizations (NGOs). As you know we have also communicated these concerns to each of you in your roles as the Governor's Representatives of the seven Colorado River Basin States.

Presently, staff from the Bureau of Reclamation and the Upper Division States are working closely with the Lower Division States, Tribes, other federal agencies, and NGOs to complete a 2022 Drought Response Operations Plan, as required by the 2019 Colorado River Drought Contingency Plan Authorization Act. Pub. L. No. 116-14 (Apr. 16, 2019). We are prioritizing these efforts and anticipate that the 2022 Drought Response Operations Plan will be finalized within the month.

Notwithstanding these robust, ongoing efforts to analyze potential releases from Colorado River Storage Project initial units to protect critical elevations at Lake Powell, we believe that additional actions are needed to reduce the risk of Lake Powell dropping to elevations at which Glen Canyon Dam releases could only be accomplished through the river outlet works (i.e., below elevation 3490' mean sea level (msl)), or hydropower operations infrastructure at Glen Canyon Dam would be adversely impacted (i.e., as reservoir elevations decline towards elevation 3490' msl). In such circumstances, Glen Canyon Dam facilities face unprecedented operational reliability challenges, water users in the Basin face increased uncertainty, downstream resources could be impacted, the western electrical grid would experience uncertain risk and instability,

and water and power supplies to the West and Southwestern United States would be subject to increased operational uncertainty.

Glen Canyon Dam was not envisioned to operate solely through the outlet works for an extended period of time and operating at this low lake level increases risks to water delivery and potential adverse impacts to downstream resources and infrastructure. In addition, should Lake Powell decline further below elevation 3490 feet, we have recently confirmed that essential drinking water infrastructure supplying the City of Page, Arizona and the LeChee Chapter of the Navajo Nation could not function.[5] Given our lack of actual operating experience in such circumstances since Lake Powell filled, these issues raise profound concerns regarding prudent dam operations, facility reliability, public health and safety, and the ability to conduct emergency operations.

Consistent with applicable federal law, and applicable provisions of the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (73 FR 19873), we are fully committed to consult with the Basin States and work together to consider these concerns and develop and implement responsive operational strategies.

The Bureau of Reclamation is also fully committed to operate Glen Canyon Dam in a safe manner and maintain reliable downstream releases. However, given the ongoing low runoff conditions, as stated above, we are approaching operating conditions for which we have only very limited actual operating experience – and which occurred nearly 60 years ago. We hope to be able to delay or avoid operational conditions below the critical elevations referenced above but we fully realize that absent a change in the recent hydrological conditions, we may not be able to avoid such operations. This reality reinforces the need for the Basin States, and all entities in the Basin, to prioritize work to further conserve and reduce use of Colorado River water to stabilize the System's reservoirs. As we engage in that regard, we will continue to work cooperatively with each of you to develop prudent, temporary actions this calendar year to protect critical elevations at Lake Powell. In particular, in conjunction with any potential 2022 Drought Response Operations Plan releases the Department respectfully requests your consideration of potentially reducing Glen Canyon Dam releases to 7.0 maf this water year and providing additional certainty regarding annual release volumes and tier determinations for the 2023 water year. Sections 6 and 7.D. of the 2007 Interim Guidelines authorize the potential reduction under current circumstances.

Given the need to make prompt decisions and implement actions in a timely manner, we request your feedback and recommendations on or before April 22, 2022. Doing so would facilitate prompt decision making in the spring of this year, enhancing our ability to implement responsive actions in a timely manner.

We stand ready to work with each of you, along with our ongoing consultation and engagement with the Basin's Tribes, other federal agencies, the Republic of Mexico, water users, and NGOs. We appreciate your prompt attention to this important and urgent matter.

---

[5] Reclamation estimates that at elevation 3465 feet these intakes would not function and staff are actively working with local officials about this concern.

Sincerely,

Tanya Trujillo
Assistant Secretary
for Water and Science

cc: Camille Calimlim Touton, Commissioner, Bureau of Reclamation
David M. Palumbo, Acting Commissioner, Bureau of Reclamation
Wayne G. Pullan, Regional Director, Bureau of Reclamation
Jacklynn L. Gould, Regional Director, Bureau of Reclamation

Identical Letters Sent To:

Mr. Estevan López
Governor's Representative
State of New Mexico
P.O. Box 25102
Santa Fe, New Mexico 87504

Mr. Gene Shawcroft
Governor's Representative
State of Utah
1426 E. 750 N. Suite 400
Orem, Utah 84097

Mr. John J. Entsminger
Governor's Representative
State of Nevada
1001 S. Valley View Blvd.
Las Vegas, Nevada 89153

Ms. Rebecca Mitchell
Governor's Representative
State of Colorado
1313 Sherman Street, Room 718
Denver, Colorado 80203

Mr. Thomas Buschatzke
Governor's Representative
State of Arizona
P.O. Box 36020
Phoenix, Arizona 85067

Mr. Patrick T. Tyrrell
Governor's Representative
State of Wyoming
122 West 25th Street
Cheyenne, Wyoming 82002

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

April 22, 2022

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

Dear Assistant Secretary Trujillo:

The Governors' representatives of the seven Colorado River Basin States write in response to your letter dated April 8, 2022, regarding coordinated operations of Glen Canyon Dam and Hoover Dam. As you know, pursuant to applicable law, the Governors' representatives have worked cooperatively over the past 50 years with the Secretary of the Interior regarding adoption and implementation of the Long-Range Operating Criteria for Colorado River Reservoirs and other related instruments, including the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (73 FR 19873), and the 2019 Drought Contingency Plan.

Most recently we have taken important proactive actions pursuant to the 2019 Drought Contingency Plan in both the Upper and Lower Basins, with the proposed 2022 Drought Response Operations Plan, the "500+ Plan" signed in December 2021, and in our cooperative efforts with the Republic of Mexico. Basin Tribes, water users, and Non-Governmental Organizations have been instrumental in the implementation of these efforts. Continuing these efforts is imperative as we address long—term supply and demand imbalances, including our efforts to support development of post-2026 operating guidelines.

Our collective efforts notwithstanding, record low runoff, particularly over the past two years, has contributed to historically-low storage in Colorado River reservoirs. We appreciate your continuing efforts to work closely with each of the Governor's representatives as we face extraordinary circumstances on the Colorado River as a result of historic drought, low-runoff conditions, and depleted storage over the past two decades.

Today, water storage in Colorado River reservoirs is at a historic low, with Lake Powell levels representing just 25 percent of remaining live storage. Of particular concern to the Basin States is the potential for Lake Powell to drop below elevation 3525' for extended periods of time, and threatening further decline below elevation 3490'. As your letter indicated: *"[i]n such circumstances, Glen Canyon Dam facilities face unprecedented operational reliability challenges, water users in the Basin face increased uncertainty,*

downstream resources could be impacted, the western electrical grid would experience uncertain risk and instability, and water and power supplies to the West and Southwestern United States would be subject to increased operational uncertainty." We recognize the urgency created by current conditions in the Basin; in fact, hydrologic conditions in the Basin have continued to decline since your April 8, 2022, letter to the Governors' representatives.

It is our collective judgment that additional cooperative actions should be taken this spring to reduce the risk of Lake Powell declining below critical elevations. Important ongoing efforts to implement the proposed 2022 Drought Response Operations Plan are underway pursuant to the Upper Division States' April 21, 2022, recommendation to release 500,000 acre-feet of water from Flaming Gorge reservoir, and we share your optimism that final decisions pursuant to this process can be completed within the next few weeks. In addition to these important ongoing efforts, we support the proposal in your April 8, 2022, letter that Reclamation implement the 480,000 acre-foot reduction to the 2022 water year release from Glen Canyon Dam to reduce the risks we all face. We acknowledge that such temporary adjustments would be implemented within the provisions of Sections 6 and 7.D. of the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (73 FR 19873). Additionally, given the increased probabilities that Glen Canyon Dam and Lake Powell will be operating in low reservoir conditions, we urge Reclamation to implement the timely evaluation of any needed maintenance or feasible modifications to water delivery or hydropower generation infrastructure at the facility.

We request that such temporary reductions in releases from Glen Canyon Dam be implemented in a manner that is operationally neutral for tier and release determinations made pursuant to the 2007 Interim Guidelines, the 2019 Drought Contingency Plan and Minute 323. Operational determinations should be made as if the 480,000 acre-feet had been released from Glen Canyon Dam in 2022 water year. Also, water year 2023 releases should be carefully monitored and be the subject of consultation with the Basin States to preserve the benefits to Glen Canyon Dam facilities and operations from both the proposed 2022 Drought Response Operations Plan and the proposed temporary reductions in releases from Glen Canyon Dam.

We further request your commitment to work closely with the Governors' representatives to preserve flexibility to address changing conditions, including:

- to ensure that the 2022 release modifications can be tracked in future years;
- to evaluate continuing risks of Lake Powell and Lake Mead reaching critical elevations and developing strategies to mitigate such risks; and
- to address releases in the future in an appropriate manner, at an appropriate time, of the temporary release reductions, with support from the Basin States, given all relevant operational considerations for Glen Canyon and Hoover Dams.

Furthermore, beyond the expected short-term benefits of this proposed action it is important to also acknowledge that there will be attendant consequences associated with the reduction in releases from Glen Canyon Dam. One such consequence will be the negative financial impacts to power contractors related to hydroelectric energy generation.

This recommendation and any subsequent actions to implement this recommendation shall not prejudice any positions within either the upper or lower basin.

We are committed to work closely with you and your staff as you consider these recommendations. We would hope that these temporary operational adjustments can be promptly implemented, in conjunction with the proposed 2022 Drought Response Operations Plan, to ensure the maximum reduction in operational risk and uncertainty in 2022. We also believe that by recommending that Reclamation undertake these temporary measures this year, each of the states is demonstrating its firm commitment to turn greater focus to the near-term steps necessary to stabilize the system and help prevent the reservoirs from declining to critical elevations.

Respectfully,

Thomas Buschatzke
Governor's Representative
State of Arizona

Rebecca Mitchell
Governor's Representative
State of Colorado

Peter Nelson
Governor's Representative
State of California

John J. Entsminger
Governor's Representative
State of Nevada

Estevan Lopez
Governor's Representative
State of New Mexico

Gene Shawcroft
Governor's Representative
State of Utah

Patrick T. Tyrrell
Governor's Representative
State of Wyoming

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

MAY 0 3 2022

Mr. Peter Nelson
Governor's Representative
State of California
770 Fairmont Avenue, Suite 100
Glendale, CA 91203

Dear Mr. Nelson:

The Colorado River Basin is experiencing unprecedented conditions of drought and low runoff. The best available science indicates that the effects of climate change will continue to adversely impact the basin. Combined water storage at our primary Colorado River reservoirs – Lake Powell and Lake Mead – is at the lowest level since Hoover Dam and Glen Canyon Dam were constructed. Colorado River inflow into Lake Powell last year was the second-lowest since Lake Powell began filling nearly sixty years ago. Current National Oceanic & Atmospheric Administration projections indicate that basin runoff will again be well below average this year.

In recent weeks, Department of the Interior staff have shared the best available information regarding hydrologic conditions and the potential for adverse effects on Glen Canyon Dam facilities and operations with representatives of the seven Colorado River Basin States, Basin Tribal leaders, Congressional staff, officials from the Republic of Mexico, water users, water districts, federal and state agencies, and non-governmental organizations (NGOs). We have identified a number of concerns, including concerns for public health and safety, that could occur within this calendar year if Lake Powell were to decline below critical elevations. These include water supply interruptions to water users that rely on Lake Powell for drinking water supplies, hydropower interruptions to users that rely on Glen Canyon Dam for power supplies, and increased uncertainty regarding downstream releases should Lake Powell elevations continue to decline. Reclamation staff have initiated efforts to assess operational and infrastructure risks and accelerate maintenance and response actions for water delivery and hydropower generation infrastructure at the facility.

The Department has reviewed these concerns, along with input from the Basin States, Tribal leaders and others and has concluded that prudent operation of Glen Canyon Dam for 2022 requires a downward adjustment to the water release volume originally planned for this water year to delay or avoid Lake Powell declining further to critical elevations. Given all of the relevant considerations, and consistent with Sections 6 and 7.D. of the 2007 Interim Guidelines, the revised operations will be implemented to include the following determinations:

Glen Canyon Dam Operations in 2022 Water Year

- The schedule for Glen Canyon Dam annual releases for water year 2022 will be temporarily changed from 7.48 million acre-feet (maf) to 7.0 maf, a reduction of 480,000 acre-feet (480,000 af reduced release amount).

Implementation of Tier Determinations

- To ensure operational neutrality with respect to the 480,000 af reduced release amount:
  - For projections of Lake Powell elevations, the August 24-Month Study determinations will be made as if the 480,000 af reduced release amount is not present in Lake Powell;
  - For projections of Lake Mead elevations, the August 24-Month Study determinations will be made as if the 480,000 af reduced release amount is present in Lake Mead;
  - The foregoing approach to operational neutrality and tier determinations will be made in the August 2022 24-Month Study projections for water year /calendar year 2023 and all subsequent tier determinations under the 2007 Interim Guidelines and the 2019 Drought Contingency Plan or until such time as the 480,000 af reduced release amount is fully released from Glen Canyon Dam.
- Consistent with the provisions of the 2007 Interim Guidelines and to preserve the benefits to Glen Canyon Dam facilities and operations in 2023, Reclamation will consult with the Basin States on monthly and annual operations.

Accounting for the Reduced Release amount for Water Year 2022

- Reclamation will take appropriate actions to account for and track the 480,000 af reduced release amount in subsequent years.
- Reclamation will evaluate continuing risks of Lake Powell and Lake Mead declining below critical elevations and develop strategies to mitigate and reduce such risks.
- Reclamation will address future releases of the 480,000 af reduced release amount from Lake Powell in an appropriate manner, and at an appropriate time, and will seek support from the Basin States for any such future releases given all relevant operational considerations for Glen Canyon Dam and Hoover Dam.

We deeply appreciate the consensus implementation actions contained in the 2022 Drought Response Operations Plan submitted to the Department on April 21, 2022 and we will ensure that the enhanced releases from Flaming Gorge are implemented in addition to implementing the reduced release amount from Glen Canyon Dam. These combined actions have received consensus support from the Basin States.[75] We have also received written support from the Colorado River Indian Tribes and the Gila River Indian Community, while other partners have also expressed general agreement with these actions. We believe these consensus approaches are superior to the exercise of unilateral action by the Department to address emergency conditions under either the Drought Response Operations Agreement or the 2007 Interim Guidelines.[76] The

[75] See Letter from Governor's representatives, Colorado River Basin States (April 22, 2022).

[76] See e.g., Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead, Sec. XI, G., at Sec. 7.D. (73 Fed. Reg. at 19892 (April 11, 2008)); Record of Decision - Operation of Flaming Gorge Dam, Action Alternative at p. 4, Sec. III (Feb. 16, 2006).

Department of the Interior and Reclamation will ensure appropriate consultation with the Basin States, Tribes, the Republic of Mexico, municipal and agricultural water users, water districts, federal and state agencies, and NGOs to address the present risks facing the Basin, continue to consult and coordinate with the Basin States pursuant to the 2007 Interim Guidelines and work cooperatively with all interested parties on efforts to address long-term supply and demand imbalances, including development of post-2026 operating guidelines.

We appreciate your support and cooperation as we continue to address the current issues and risks facing the Colorado River Basin.

Sincerely,

Tanya Trujillo
Assistant Secretary
for Water and Science

cc: Camille Calimlim Touton, Commissioner, Bureau of Reclamation
David M. Palumbo, Acting Commissioner, Bureau of Reclamation
Wayne G. Pullan, Regional Director, Bureau of Reclamation
Jacklynn L. Gould, Regional Director, Bureau of Reclamation

Identical Letters Sent To:

Mr. Estevan López
Governor's Representative
State of New Mexico
P.O. Box 25102
Santa Fe, New Mexico 87504

Mr. John J. Entsminger
Governor's Representative
State of Nevada
1001 S. Valley View Blvd.
Las Vegas, Nevada 89153

Ms. Rebecca Mitchell
Governor's Representative
State of Colorado
1313 Sherman Street, Room 718
Denver, Colorado 80203

Mr. Peter Nelson
Governor's Representative
State of California
770 Fairmont Avenue, Suite 100
Glendale, California 91203

Mr. Patrick T. Tyrrell
Governor's Representative
State of Wyoming
122 West 25th Street
Cheyenne, Wyoming 82002

Mr. Gene Shawcroft
Governor's Representative
State of Utah
1426 E. 750 N. Suite 400
Orem, Utah 84097

Mr. Thomas Buschatzke
Governor's Representative
State of Arizona
P.O. Box 36020
Phoenix, Arizona 85067

The Honorable Robert Miguel
Chairman, Ak-Chin Indian Community
42507 West Peters & Nall Road
Maricopa, AZ 85138-3940

The Honorable Sierra Pencille
Chairwoman, Chemehuevi Indian Tribe
P.O. Box 1976
Havasu Lake, CA 92363

The Honorable Sherry Cordova
Chairwoman, Cocopah Indian Tribe
14515 South Veterans Drive
Somerton, AZ 85350

The Honorable Amelia Flores
Chairwoman, Colorado River Indian Tribes
26600 Mohave Road
Parker, AZ 85344

The Honorable Bernadine Burnette
President, Fort McDowell Yavapai Nation
P.O. Box 17779
Fountain Hills, AZ 85268-77

The Honorable Timothy Williams
Chairman, Fort Mojave Indian Tribe
500 Merriman Avenue
Needles, CA 92363

The Honorable Jordan Joaquin
President, Fort Yuma - Quechan Tribe
P.O. Box 1899
Yuma, AZ 85366

The Honorable Stephen R. Lewis
Governor, Gila River Indian Community
P.O. Box 97
Sacaton, AZ 85247

The Honorable Eva Kissoon
Chairwoman, Havasupai Tribe
P.O. Box 10
Supai, AZ 86435-0010

The Honorable Timothy L. Nuvangyaoma
Chairman, Hopi Tribe
P.O. Box 123
Kykotsmovi, AZ 86039

The Honorable Damon Clarke
Chairman, Hualapai Tribe
P.O. Box 179
Peach Springs, AZ 86434

The Honorable Ona Segundo
Chairwoman, Kaibab Band of Paiute Indians
Tribal Administration Building
#1 North Pipe Spring Road
Fredonia, AZ 86022

The Honorable Curtis Anderson
Chairman, Las Vegas Paiute Tribe
1 Paiute Drive
Las Vegas, NV 89106

The Honorable Laura Parry
Chairwoman, Moapa Band of Paiute Indians
P.O. Box 340
Moapa, NV 89025

The Honorable Jonathan Nez
President, Navajo Nation
P.O. Box 9000
Window Rock, AZ 86515

The Honorable Peter Yucupicio
Chairman, Pascua Yaqui Tribe
7474 South Camino DeOeste
Tucson, AZ 85746

The Honorable Val R. Panteah
Governor, Pueblo of Zuni
P.O. Box 339
Zuni, NM 87327

The Honorable Martin Harvier
President, Salt River Pima-Maricopa Indian Community
10005 East Osborn Road
Scottsdale, AZ 85256

The Honorable Terry Rambler
Chairman, San Carlos Apache Tribe
P.O. Box 0
San Carlos, AZ 85550

The Honorable Johnny Lehi Jr.
President, San Juan Southern Paiute
P.O. Box 1989
Tuba City, AZ 86045

The Honorable Ned Norris Jr.
Chairman, Tohono O'odham Nation
P.O. Box 837
Sells, AZ 85634

The Honorable Austin G. Nunez
Chairman, San Xavier District of Tohono O'odham Nation
2018 West San Xavier Road
Tucson, AZ 85746

The Honorable Denise Flores
Chairwoman, Schuk Toak District of Tohono O'odham Nation
Highway 86
Sells, AZ 85634

The Honorable Rita Wilson
Chairwoman, Sif Oidak District of Tohono O'odham Nation
P.O. Box 12038
Casa Grande, AZ 85130

The Honorable Calvin Johnson
Chairman, Tonto Apache Tribe
Tonto Apache Reservation #30
Payson, AZ 85541

The Honorable Gwendena Lee-Gatewood
Chairwoman, White Mountain Apache Tribe
P.O. Box 700
Whiteriver, AZ 85941

The Honorable Jon Huey
Chairman, Yavapai-Apache Nation
2400 West Datsi Street
Camp Verde, AZ 86322

The Honorable Robert Ogo
President, Yavapai-Prescott Indian Tribe
530 East Merritt Street
Prescott, AZ 86301

The Honorable Edward Velarde
President, Jicarilla Apache Nation
P.O. Box 507
Dulce, NM 87528

The Honorable Melvin Baker
Chairman, Southern Ute Indian Tribe
P.O. Box 737
Ignacio, CO 81137

The Honorable Corrina Bow
Chairwoman, Paiute Indian Tribe of Utah
440 N Paiute Drive
Cedar City, UT 84721

The Honorable Shaun Chapoose
Chairman, Ute Indian Tribe of the Uintah and Ouray Reservation
P.O. Box 190
Fort Duchesne, UT 84026

The Honorable Manual Heart
Chairman, Ute Mountain Ute Tribe
124 Mike Wash Rd
Towaoc, CO 81334