Colorado River Board of California

December 29, 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, January 11, 2023
Time: 10:00 a.m.
Place: Sheraton Ontario Airport Hotel
Orchid Room
429 North Vineyard Avenue
Ontario, CA 91764

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

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

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

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

Christopher S. Harris
Executive Director

Regular Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, January 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 (Limited to 5 minutes)

3. Administration

a. Election of Board Officers (**Action**)

4. Colorado River Basin and Local Water Supply Reports and Agency Updates

5. Colorado River Basin Programs Staff Reports

6. Executive Session[1]

7. Other Business

8. Future Agenda Items/Announcements

Next Scheduled Board Meeting: February 15, 2023
10:00 a.m., Pacific
Sheraton Ontario Airport Hotel, Orchid Room
429 North Vineyard Avenue
Ontario, CA 91764

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

1/3/2023

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%	5,531	3,524.75	8,700
* LAKE MEAD	28%	7,323	1,044.95	7,100
LAKE MOHAVE	90%	1,633	640.57	7,000
LAKE HAVASU	91%	564	447.13	4,000
TOTAL SYSTEM CONTENTS **	33%	19,044		
As of 1/2/2023				
SYSTEM CONTENT LAST YEAR	37%	22,072		

*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	68%	1,557		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	9%	88	1,108.90	25

Preliminary Observed Water Use for Calendar Year 2022 (as of 12/31/2022) (values in kaf)

NEVADA	224	
SOUTHERN NEVADA WATER SYSTEM		210
OTHERS		14
CALIFORNIA	4,431	
METROPOLITAN WATER DISTRICT OF CALIFORNIA		1,129
IRRIGATION DISTRICTS		3,286
OTHERS		16
ARIZONA	2,015	
CENTRAL ARIZONA PROJECT		958
OTHERS		1,057
TOTAL LOWER BASIN USE		6,669
DELIVERY TO MEXICO - 2022 (Mexico Scheduled Delivery + Preliminary Yearly Excess[1])		1,459

OTHER SIGNIFICANT INFORMATION
UNREGULATED INFLOW INTO LAKE POWELL - DECEMBER FINAL FORECAST DATED 12/16/2022

	MILLION ACRE-FEET	% of Normal
FORECASTED WATER YEAR 2023	7.700	80%
FORECASTED APRIL-JULY 2023	5.035	79%
DECEMBER OBSERVED INFLOW	0.281	88%
JANUARY INFLOW FORECAST	0.270	80%

	Upper Colorado Basin	Salt/Verde Basin
WATER YEAR 2023 PRECIP TO DATE	119% (9.9")	131% (9.9")
CURRENT BASIN SNOWPACK	140% (9.0")	150% (3.7")

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

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— 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	2,012,263	2,015,097	2,011,143	**3,954**
California	4,423,314	4,430,670	4,349,055	**81,615**
Nevada	223,317	223,512	223,512	0
States Total [3]	**6,658,894**	**6,669,279**	**6,583,710**	**85,569**
Total Deliveries to Mexico in Satisfaction of Treaty Requirements [4]	1,480,042	1,449,819	1,449,819	
Creation of Mexico's Recoverable Water Savings [5]	30,000	30,000	30,000	
Creation of Mexico's Water Reserve [6]	5,041	5,159	5,159	
Delivery of Mexico's Water Reserve [7]	(34,977)	(34,977)	(34,977)	
Total to Mexico in Satisfaction of Treaty Requirements [8]	1,480,106	1,450,000	1,450,000	
To Mexico in Excess of Treaty [9]	8,857	8,936	25,039	
Water Bypassed Pursuant to IBWC Minute 242 [10]	142,127	142,440	116,633	
**Total Lower Basin & Mexico '' **	**8,289,920**	**8,270,474**	**8,175,201**	

[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.

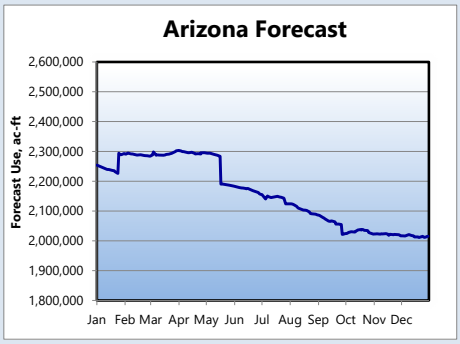
[7] Delivery from Mexico's Water Reserve pursuant to Section V.E.13 of IBWC Minute 323.

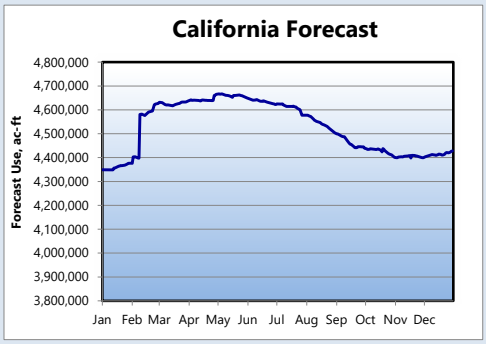
[8] In accordance with Section XI.G.2.D.1.a of the 2007 Interim Guidelines, a Tier 1 Shortage Condition will govern the operation of Lake Mead and the Lower Colorado River in 2022. In accordance with Section III.A of Minute 323, Mexico's scheduled deliveries incoporate the required reduction of 50,000 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.

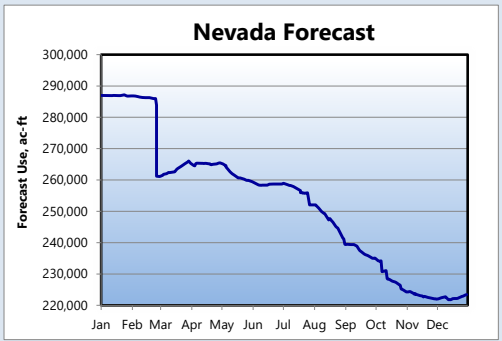
[9] Mexico excess forecast is based on the 5-year average for the period 2016-2020.

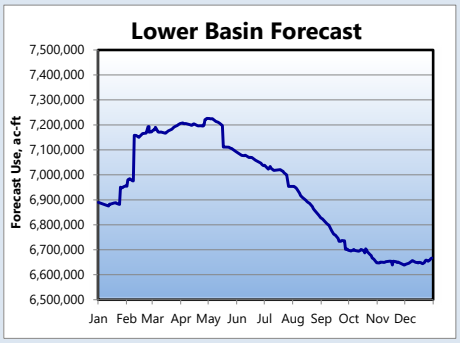
[10] Bypass forecast is based on the average for the period 1990-2020.

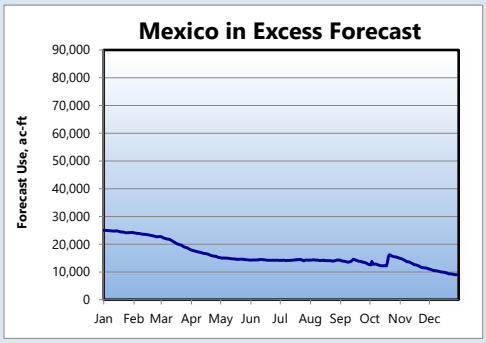
[11] Includes States Total, Deliveries to Mexico in Satisfaction of Treaty, To Mexico in Excess of Treaty, and Water Bypassed Pursuant IBWC Minute 242.

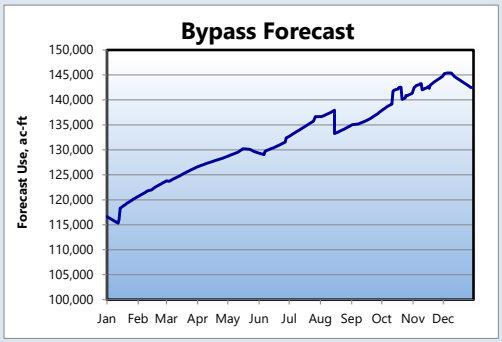












Graph notes: January 1 forecast use is scheduled use in accordance with the Annual Operating Plan's state entitlements, available unused entitlements, and over-run paybacks. A downward sloping line indicates use at a lower rate than scheduled, upward sloping is above schedule, and a flat line indicates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

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— 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	6,382	6,382	6,382	---	9,818	9,818	9,818	0
Lake Mead NRA, AZ - Diversions from Lake Mead	60	60	77	---	60	60	77	-17
Lake Mead NRA, AZ - Diversions from Lake Mohave	227	228	228	---	227	228	228	0
Bureau of Reclamation - Davis Dam Project	2	2	2	---	16	16	16	0
Bullhead City	7,046	7,070	8,699	---	10,840	10,877	13,730	-2,853
Mohave Water Conservation District	750	752	753	---	1,119	1,122	1,122	0
Mohave Valley I.D.D. [1]	11,359	11,389	15,059	---	21,030	21,086	27,879	-6,793
Fort Mojave Indian Reservation, AZ	41,077	41,112	44,550	---	76,069	76,134	82,500	-6,366
Golden Shores Water Conservation District	286	286	286	---	429	429	429	0
Havasu National Wildlife Refuge	2,946	2,948	3,564	---	24,535	24,563	41,835	-17,272
EPCOR Water Arizona, Inc. - CSA No. 1	580	581	493	---	930	933	997	-64
Lake Havasu City	8,341	8,363	9,052	---	13,454	13,489	14,600	-1,111
Central Arizona Water Conservation District	955,993	957,913		---	955,993	957,913		---
Town of Parker	366	367	424	---	829	831	917	-86
EPCOR Water Arizona, Inc. - CSA No. 2 (formerly Brooke Water, LLC)	290	291	324	---	434	435	486	-51
Colorado River Indian Reservation, AZ	263,778	263,782	227,832	---	483,451	483,982	510,510	-26,528
Ehrenberg Improvement District	252	252	252	---	352	352	352	0
Arizona State Land Department	3,623	3,633	4,485	---	5,658	5,674	6,900	-1,226
Cibola Valley I.D.D.	5,322	5,322	5,323	---	7,443	7,443	*7,443*	0
Red River Land Co.	215	215	214	---	300	300	300	0
Hopi Tribe	3,059	3,059	3,059	---	4,278	4,278	4,278	0
GSC Farms, LLC	2,083	2,083	2,083	---	2,913	2,913	2,913	0
Arizona Game & Fish	2,029	2,029	2,029	---	2,837	2,838	2,838	0
Western Water, LLC	44	44	44	---	61	61	61	0
Bishop Family Trust	186	186	186	---	260	260	260	0
Cathcarts	63	63	63	---	88	88	88	0
Cibola Sportsmans Club	139	139	139	---	194	194	194	0
Cibola National Wildlife Refuge	7,683	7,689	14,264	-6,575	12,391	12,400	23,005	-10,605
Imperial National Wildlife Refuge	3,142	3,152	3,799	-647	5,068	5,084	6,128	-1,044
BLM Permittees (Parker Dam to Imperial Dam)	1,247	1,247	1,247	0	1,919	1,919	1,919	0
Cha Cha, LLC	1,279	1,281	1,365	---	1,966	1,970	2,100	-130
Beattie Farms Southwest	621	623	722	---	955	957	1,110	-153
Yuma Proving Ground	404	405	524	---	404	405	524	-119
Gila Monster Farm	4,257	4,265	4,888	---	7,616	7,632	8,500	-868
Wellton-Mohawk Irrigation and Drainage District	256,209	256,389	278,000	-21,611	375,345	376,046	424,350	-48,304
BLM Permittees (Below Imperial Dam)	109	109	109	0	168	168	168	0
City of Yuma	14,169	14,207	15,833	-1,626	23,956	24,031	27,500	-3,469
U.S. Marine Corps Air Station Yuma	1,120	1,122	1,300	---	1,120	1,122	1,300	-178
Union Pacific Railroad	24	24	29	---	48	48	48	0
University of Arizona	741	742	852	---	741	742	852	-110
Yuma Union High School District	120	120	150	---	163	163	200	-37
Desert Lawn Memorial	26	26	26	---	37	37	37	0
North Gila Valley Irrigation District	8,645	8,649	10,674	---	40,889	40,966	43,500	-2,534
Yuma Irrigation District	36,231	36,288	39,569	---	65,877	66,003	73,000	-6,997
Yuma Mesa Irrigation and Drainage District	93,788	93,822	99,391	---	197,743	198,046	*213,652*	-15,606
Unit "B" Irrigation and Drainage District	15,073	15,068	14,900	---	27,287	27,319	29,400	-2,081
Fort Yuma Indian Reservation	1,939	1,939	1,939	---	2,983	2,983	2,983	0
Yuma County Water Users' Association	248,093	248,529	275,560	---	354,825	355,535	367,400	-11,865
Cocopah Indian Reservation	650	655	1,725	---	870	877	2,650	-1,773
Reclamation - Yuma Area Office	195	195	195	---	195	195	195	0
Total Arizona	**2,012,263**	**2,015,097**	**2,060,576**		**2,746,184**	**2,750,965**	**2,919,205**	
Central Arizona Project (CAP)	955,993	957,913				957,913		
All Others	1,056,270	1,057,184	1,102,663			1,793,052	1,961,292	
Yuma Mesa Division, Gila Project	138,664	138,759	149,634	-10,875		305,015		
Total 242 Well Field Pumping [2]	42,429	42,521	56,129					

Footnotes: See next page.

ARIZONA ADJUSTED APPORTIONMENT CALCULATION

Arizona Basic Apportionment		2,800,000
Reduction for Tier 1 Shortage [3]		(320,000)
Arizona DCP Contribution [4,5]		(192,000)
Creation of Extraordinary Conservation ICS - GRIC (Estimated) [5,6]		(78,565)
System Conservation Water - Pilot System Conservation Program [7]		(500)
System Conservation Water - CRIT [8]		(50,000)
System Conservation Water - CAP [9]		(90,809)
System Conservation Water - CRIT [10,11]		(4,685)
System Conservation Water - FMYN [10,12]		(13,933)
System Conservation Water - GRIC [10,13]		(58,837)
System Conservation Water - MVIDD [10,14]		(9,592)
System Conservation Water - Reclamation (Estimated) [10,15]		(11,392)
System Conservation Water - YMIDD [10,16]		(8,544)
Delivery of ICS (CAWCD)	up to	50,000
Total State Adjusted Apportionment		2,011,143
Excess to Total State Adjusted Apportionment		3,954
Estimated Allowable Use for CAP		**953,959**

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

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

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

[4] In accordance with Section III.B.1.a 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.

[5] When combined with the approved EC ICS creation amount for the Gila River Indian Community (GRIC), the total amount of EC ICS approved for creation in the state of Arizona in 2022 is 178,565 AF, which exceeds the state's annual creation limit set forth in Section XI.G.3.B.4 of the 2007 Interim Guidelines. In accordance with Section XI.G.3.B.4 of the 2007 Interim Guidelines and Section IV.B of 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.

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

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

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

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

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

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

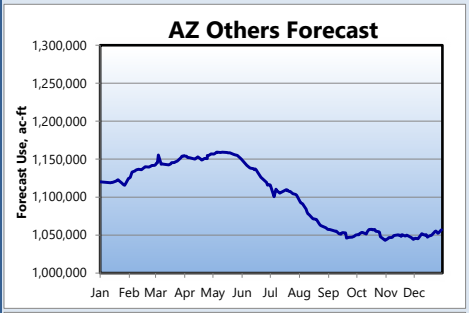
[12] CAP water being conserved by FMYN pursuant to SCIA No. 20-XX-30-W0688, which will remain in Lake Mead to benefit system storage.

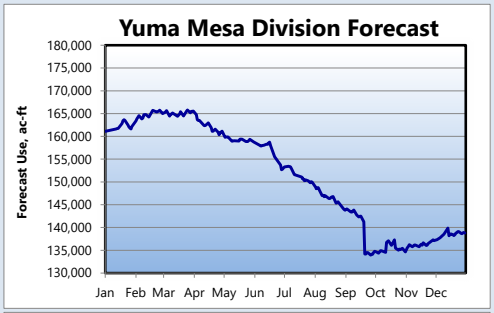
[13] CAP water being conserved by GRIC pursuant to SCIA No. 22-XX-30-W0724 and SCIA No. 23-XX-30-W0748, which will remain in Lake Mead to benefit system storage.

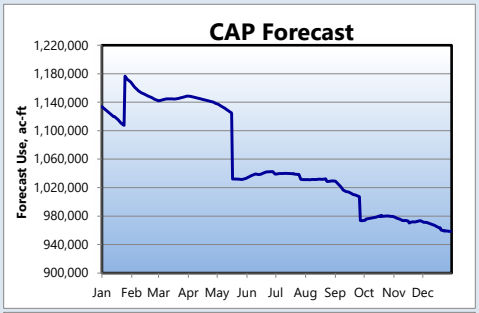
[14] System Conservation Water being created by MVIDD pursuant to SCIA No. 22-XX-30-W0725, which will remain in Lake Mead to benefit system storage.

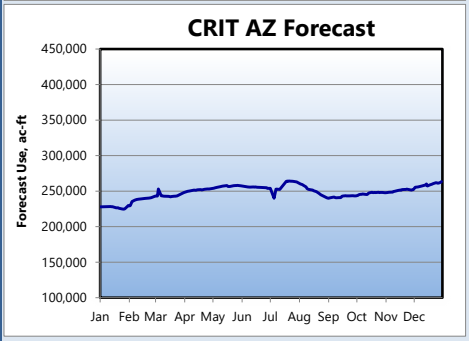
[15] System Conservation Water being created by additional pumping from the 242 Well Field Expansion pursuant to Letter Agreement No. 16-XX-30-W0603, Revision No. 1, which will remain in Lake Mead to benefit system storage.

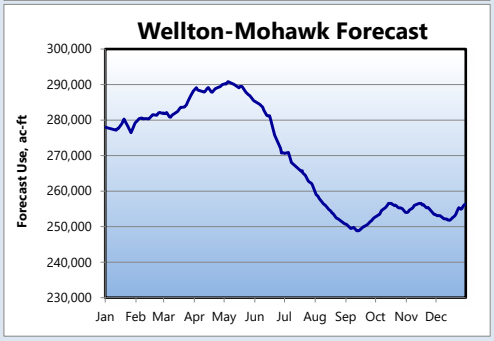
[16] System Conservation Water created by YMIDD Agreement No. 22-XX-30-W0728, which will remain in Lake Mead to benefit system storage.

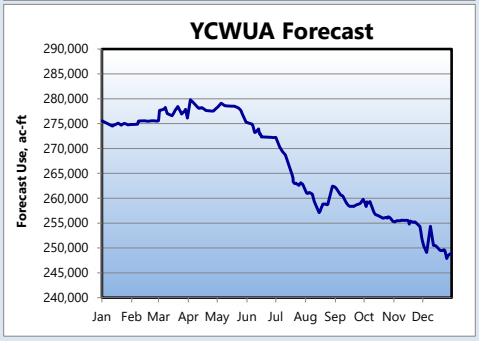












NOTES: Click on Arizona Schedules and Approvals above for incoming diversion schedules and approvals.

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— 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	6,731	6,740	8,996	---	12,513	12,530	16,720	-4,190
PPR No. 30 (Stephenson)	23	23	23	---	42	42	42	0
PPR No. 38 (Andrade)	23	23	23	---	42	42	42	0
City of Needles (includes LCWSP use)	1,273	1,276	1,605	-329	2,097	2,101	2,261	-160
Chemehuevi Indian Reservation	183	183	183	---	11,340	11,340	11,340	0
The Metropolitan Water District of Southern California	1,125,473	1,128,884		---	1,128,119	1,131,538		---
Colorado River Indian Reservation, CA	5014	5,014	5,014	---	8,307	8,307	8,307	0
Palo Verde Irrigation District	333,739	333,695	420,696	---	783,882	784,850	857,000	-72,150
Lake Enterprises	1	1	1	---	1	1	1	0
Yuma Project Reservation Division	40,545	40,596	49,577	---	82,874	83,036	98,635	-15,599
Yuma Project Reservation Division - Bard Unit	---	---	---	---	38,950	39,031	51,500	-12,469
Yuma Project Reservation Division - Indian Unit	---	---	---	---	43,924	44,005	47,135	-3,130
Fort Yuma Indian Reservation - Ranch 5 (Surface Delivery)	1,069	1,071	1,194	---	1,933	1,936	2,160	-224
Fort Yuma Indian Reservation - Other Ranches (Pumpers)	1,139	1,139	1,139	---	2,059	2,059	2,059	0
Yuma Island Pumpers	1,629	1,629	1,629	---	2,947	2,947	2,947	0
Imperial Irrigation District [1]	2,574,008	2,577,351	2,620,300	-42,949	2,623,285	2,626,975	2,719,536	---
Coachella Valley Water District	331,840	332,421	384,000	-51,579	351,226	351,870	399,950	---
Other LCWSP Contractors	563	563	563	---	907	907	907	0
City of Winterhaven	61	61	61	---	88	88	88	0
Total California	**4,423,314**	**4,430,670**	**4,628,379**		**5,011,662**	**5,020,569**	**5,257,934**	

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

California Basic Apportionment	4,400,000
System Conservation Water - Pilot System Conservation Program [2]	(145)
System Conservation Water - PVID 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	81,615
Estimated Allowable Use for MWD	1,047,269

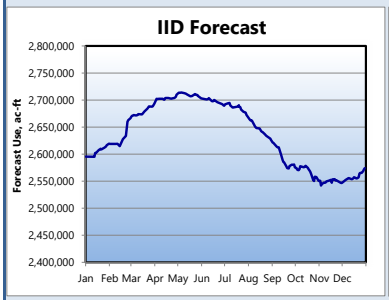
[1] As shown here, IID's Approved Diversion and Estimated Use values reflect the maximum amount of Colorado River water available to IID in 2022. Note: This forecast may be updated to reflect up to 25,000 AF of water conserved and stored by IID pursuant to the IID-MWD Settlement and Release Agreement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

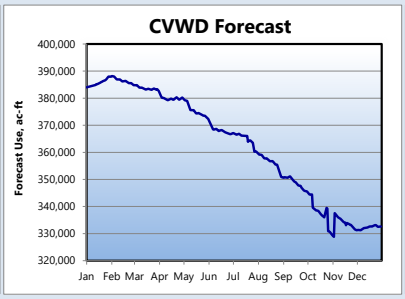
[2] System Consevation Water to be conserved by the City of Needles pursuant to System Conservation Implementation Agreement No. 15-XX-30-W0596, executed under the Pilot System Conservation Program. This water will remain in Lake Mead to benefit system storage.

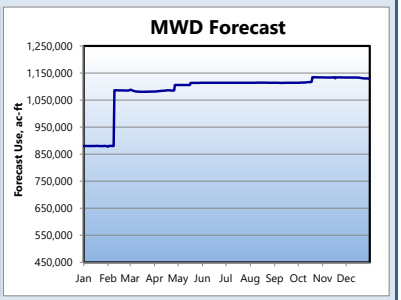
[3] The estimated amount of System Conservation Water that will be created pursuant to Funding Agreement No. 21-XX-30-W0714 (Funding Agreement). This System Conservation Water will remain in Lake Mead to benefit system storage. In accordance with the Funding Agreement, the Bureau of Reclamation intends 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.*

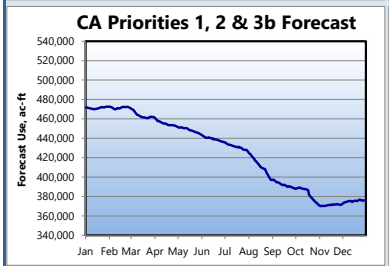
[4] IID has an approved ICS Plan for the creation of up to 62,000 AF of Extraordinary Conservation (EC) ICS in 2022; however, pursuant to Section 3 of the of the *California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus* , as amended, IID may accumulate 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.

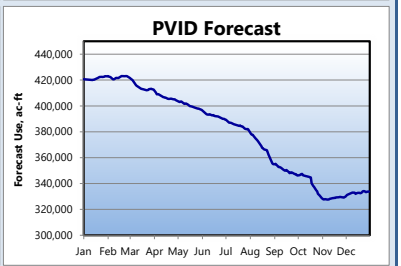
[5] MWD has an approved ICS Plan for the creation of up to 450,000 AF of EC ICS in 2022. The actual amount of EC ICS created by MWD in 2022 will be based on final accounting and verification, and will be limited to the amount that, when combined with the amount of EC ICS created by IID, does not exceed 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.

Dec 31, 2022 01:08:50 PM

— 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)	447,689	448,508		---	447,689	448,508		---
Lake Mead NRA, NV - Diversions from Lake Mead	506	509	1,500	---	506	509	1,500	-991
Lake Mead NRA, NV - Diversions from Lake Mohave	224	226	500	---	224	226	500	-274
Basic Management, Inc.	1,966	1,966	8,208	---	1,966	1,966	8,208	-6,242
City of Henderson (BMI Delivery)	5,675	5,675	15,878	---	5,675	5,675	15,878	-10,203
Nevada Department of Wildlife	2	2	12	-10	174	176	1,000	---
Pacific Coast Building Products, Inc.	889	891	928	---	889	891	928	-37
Boulder Canyon Project	175	175	175	---	300	300	300	0
Big Bend Water District	1,831	1,840	4,765	---	3,999	4,020	10,000	-5,980
Fort Mojave Indian Tribe	2,608	2,612	4,623	---	3,892	3,899	6,900	-3,001
Las Vegas Wash Return Flows	-238,248	-238,892	-228,466	---				
Total Nevada	**223,317**	**223,512**	**271,446**	**-10**	**465,314**	**466,170**	**508,537**	**-26,728**
Southern Nevada Water System (SNWS)	209,441	209,616				448,508		
All Others	13,876	13,896				17,662		
Nevada Uses Above Hoover	218,878	219,060				458,251		
Nevada Uses Below Hoover	4,439	4,452				7,919		

Tributary Conservation (TC) Intentionally Created Surplus (ICS)

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

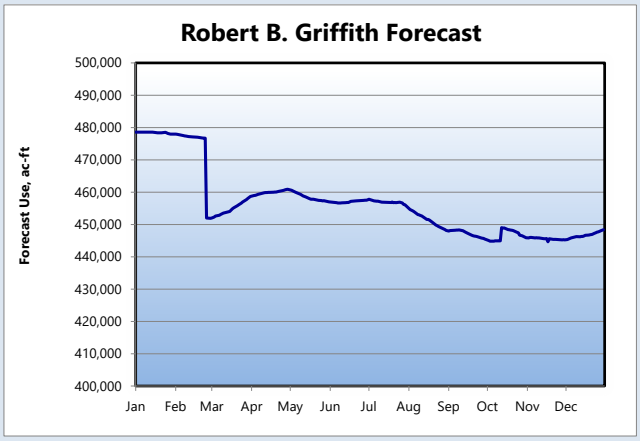
NEVADA ADJUSTED APPORTIONMENT CALCULATION

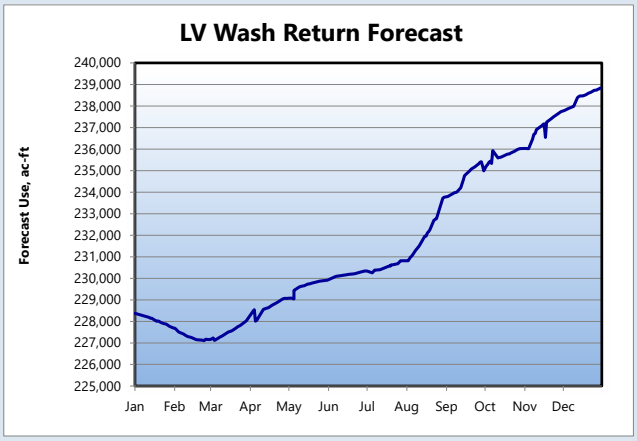
Nevada Basic Apportionment	300,000
Reduction for Tier 1 Shortage [2]	(13,000)
Creation of Extraordinary Conservation ICS - SNWA (Estimated) [3]	(63,488)
Total State Adjusted Apportionment	223,512
Excess to Total State Adjusted Apportionment	0

[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.



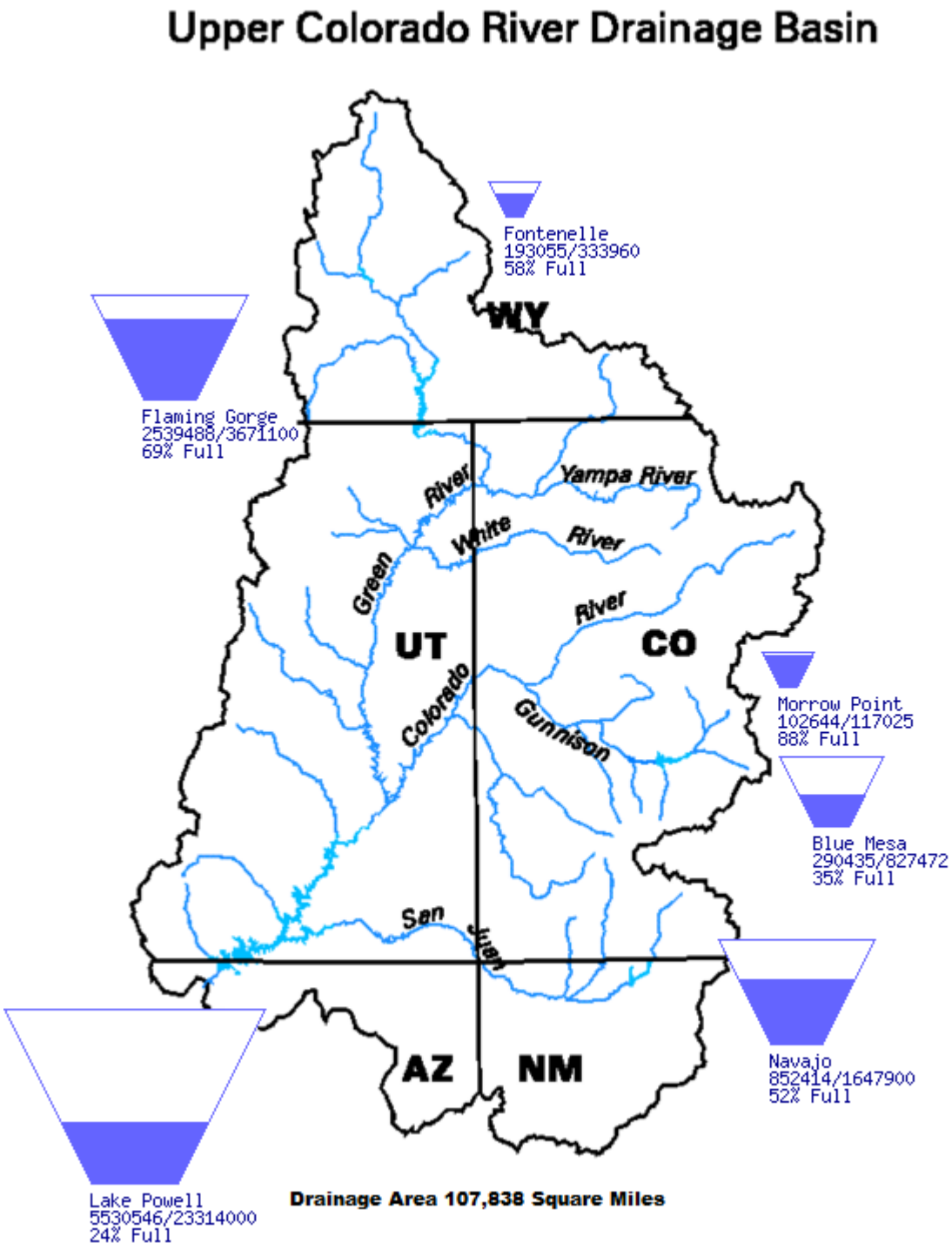


NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

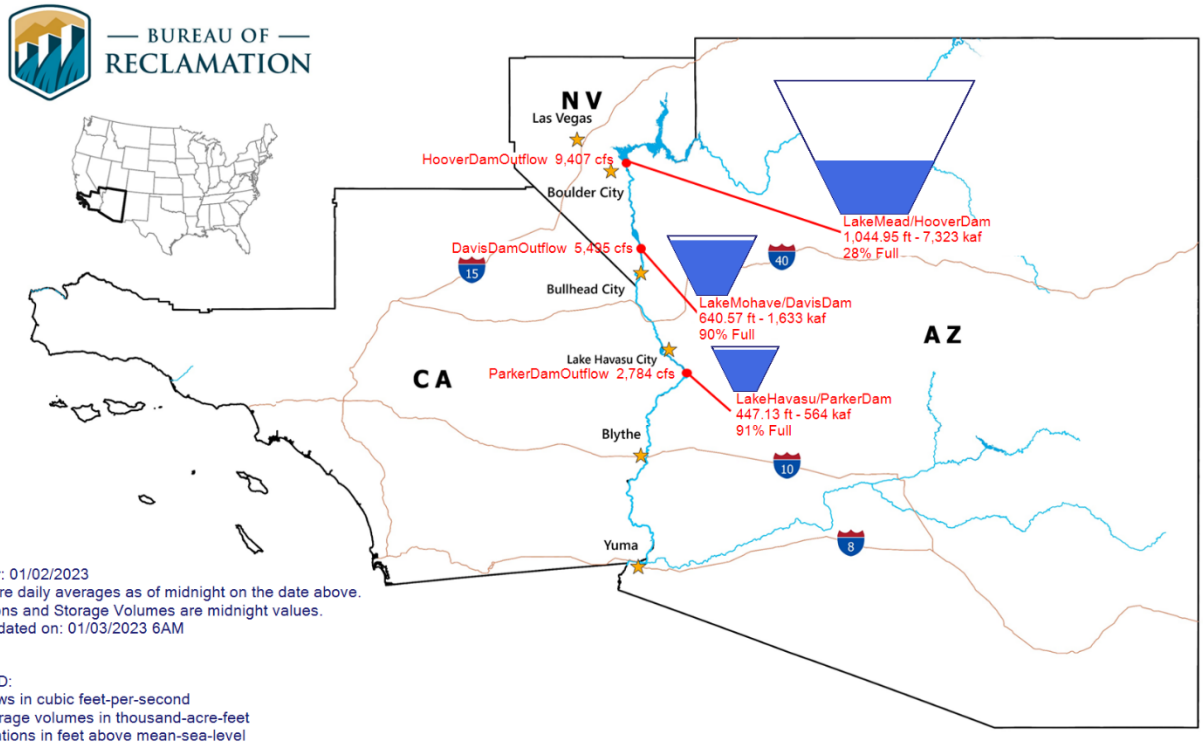
Upper Colorado Region Water Resources Group

River Basin Tea-Cup Diagrams

Data Current as of:
01/01/2023



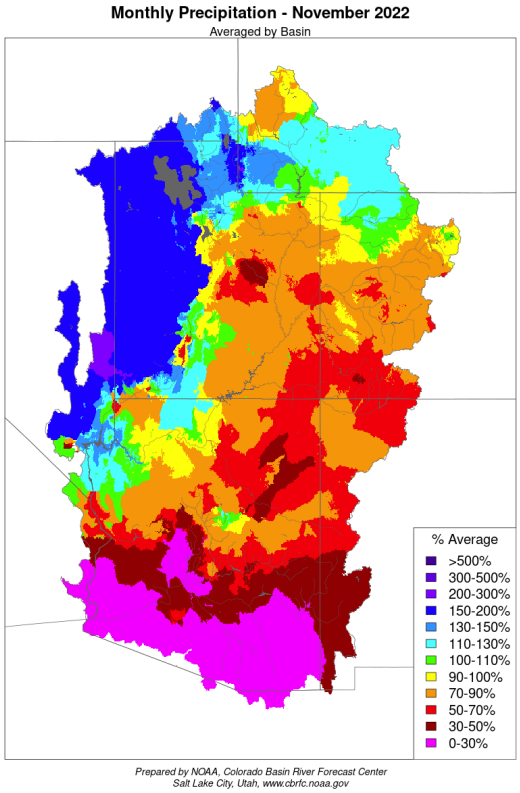
Lower Colorado River Teacup Diagram

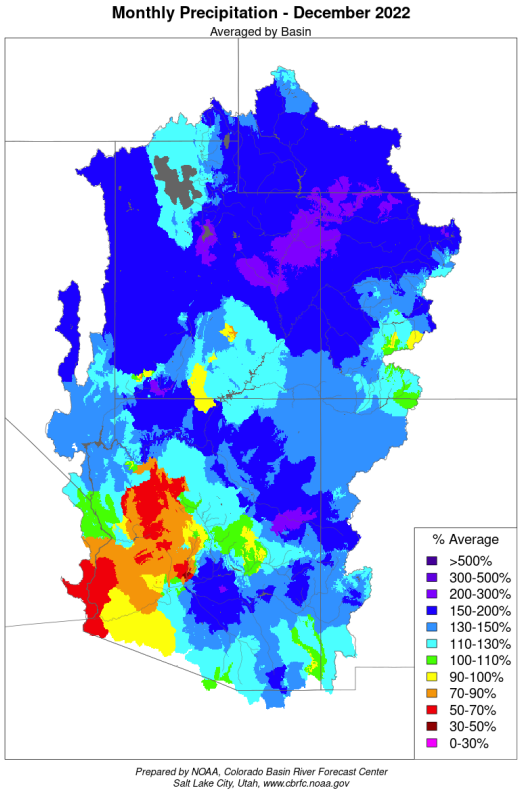


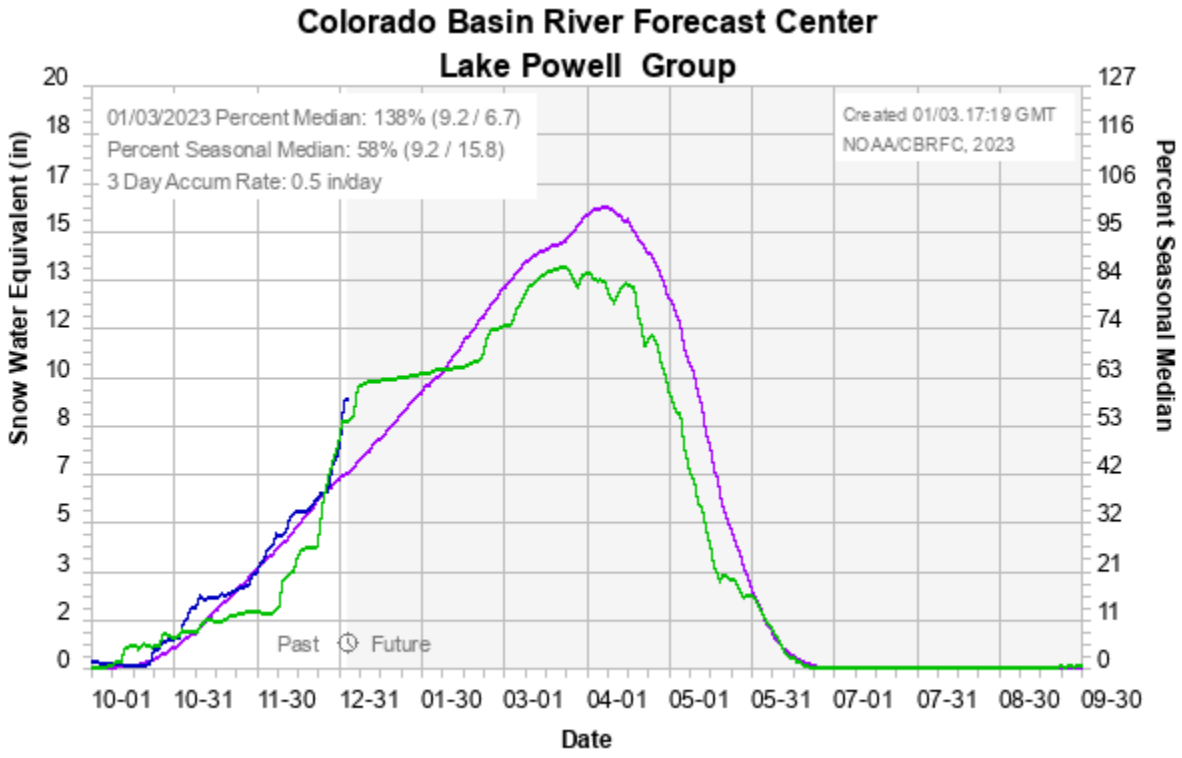
Data for: 01/02/2023
Flows are daily averages as of midnight on the date above.
Elevations and Storage Volumes are midnight values.
Last updated on: 01/03/2023 6AM

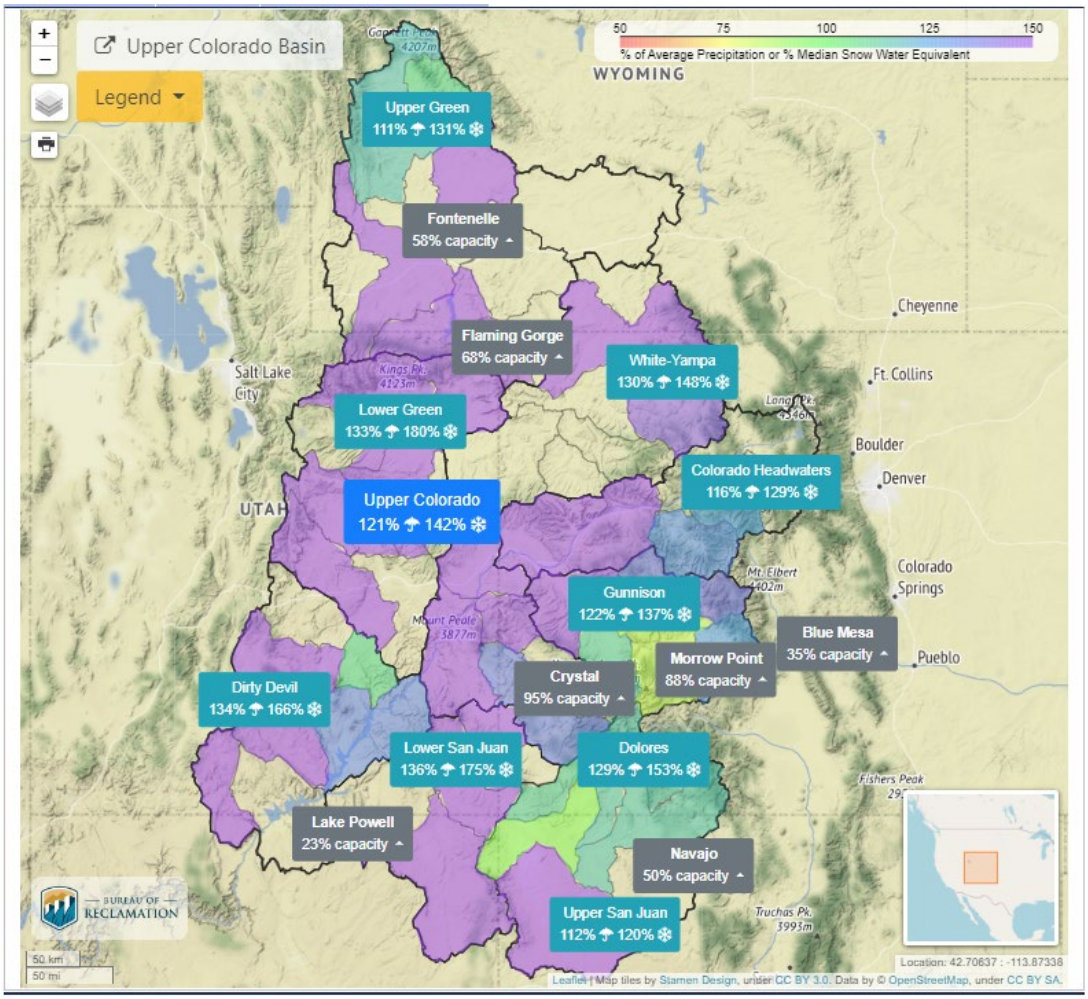
LEGEND:
cfs: Flows in cubic feet-per-second
kaf: Storage volumes in thousand-acre-feet
ft: Elevations in feet above mean-sea-level

NOAA National Weather Service Monthly Precipitation Map November and December 2022



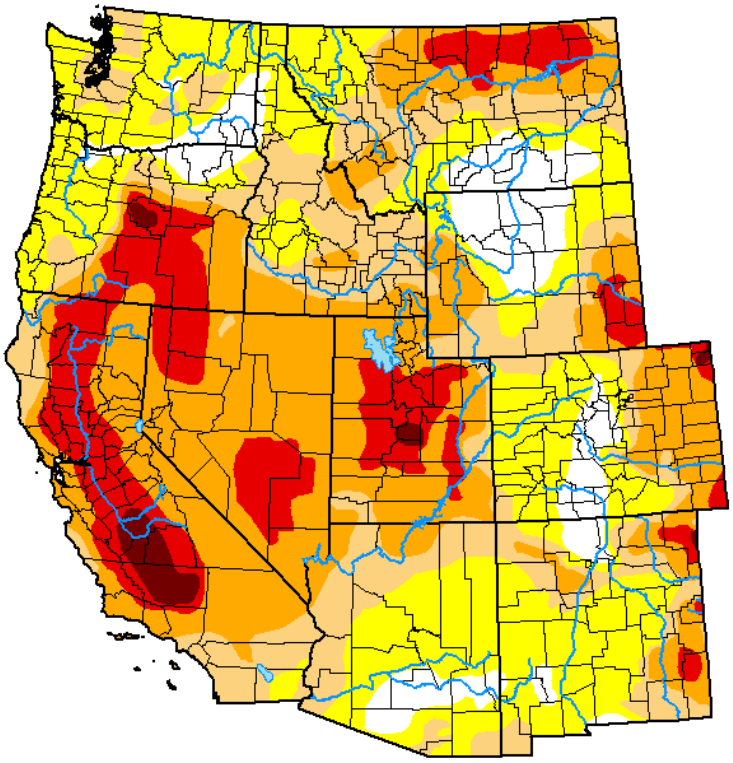



Colorado Basin River Forecast Center
Lake Powell Group
01/03/2023 Percent Median: 138% (9.2 / 6.7)
Percent Seasonal Median: 58% (9.2 / 15.8)
3 Day Accum Rate: 0.5 in/day
Created 01/03.17:19 GMT
NOAA/CBRFC, 2023
Snow Water Equivalent (in)
Percent Seasonal Median
Past
Future
Date
Median 1991-2020
2023
2022


Upper Colorado Basin
Legend
% of Average Precipitation or % Median Snow Water Equivalent
WYOMING
Upper Green
111% 131%
Fontenelle
58% capacity
Flaming Gorge
68% capacity
White-Yampa
130% 148%
Lower Green
133% 180%
Upper Colorado
121% 142%
Colorado Headwaters
116% 129%
Gunnison
122% 137%
Blue Mesa
35% capacity
Morrow Point
88% capacity
Crystal
95% capacity
Dirty Devil
134% 166%
Lower San Juan
136% 175%
Dolores
129% 153%
Lake Powell
23% capacity
Navajo
50% capacity
Upper San Juan
112% 120%
Cheyenne
Ft. Collins
Boulder
Denver
Colorado Springs
Pueblo
Salt Lake City
UTAH
BUREAU OF RECLAMATION

USDA United States Drought Monitor Map

U.S. Drought Monitor
West



December 27, 2022
(Released Thursday, Dec. 29, 2022)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.44	91.56	64.25	43.80	14.08	1.27
Last Week *12-20-2022*	8.66	91.34	64.64	43.80	14.08	1.27
3 Months Ago *09-27-2022*	3.89	96.11	73.90	47.71	19.37	2.63
Start of Calendar Year *01-04-2022*	3.68	96.32	89.29	64.90	23.85	3.94
Start of Water Year *09-27-2022*	3.89	96.11	73.90	47.71	19.37	2.63
One Year Ago *12-28-2021*	3.43	96.57	90.94	71.00	31.05	4.82

Intensity:

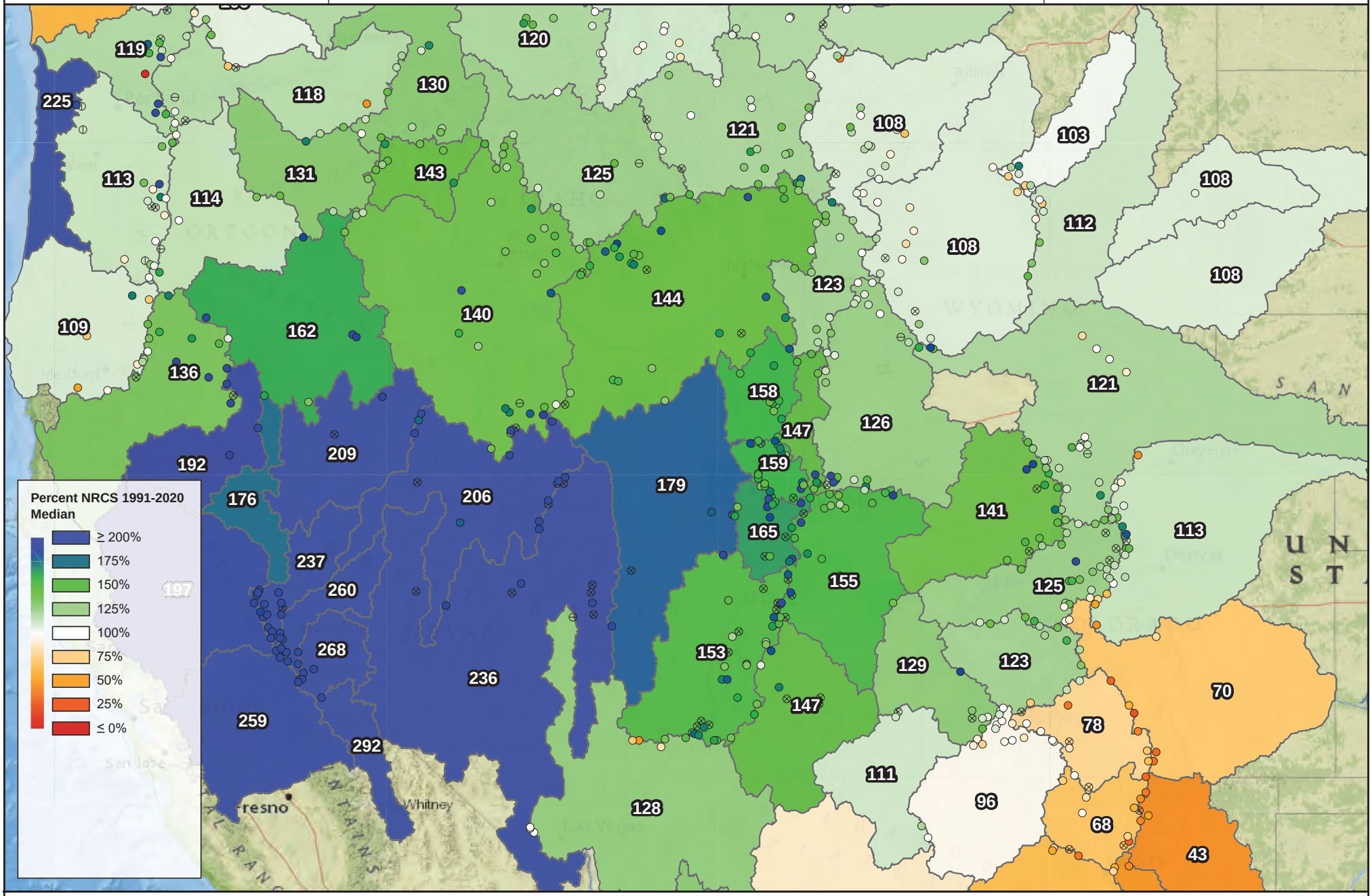
- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

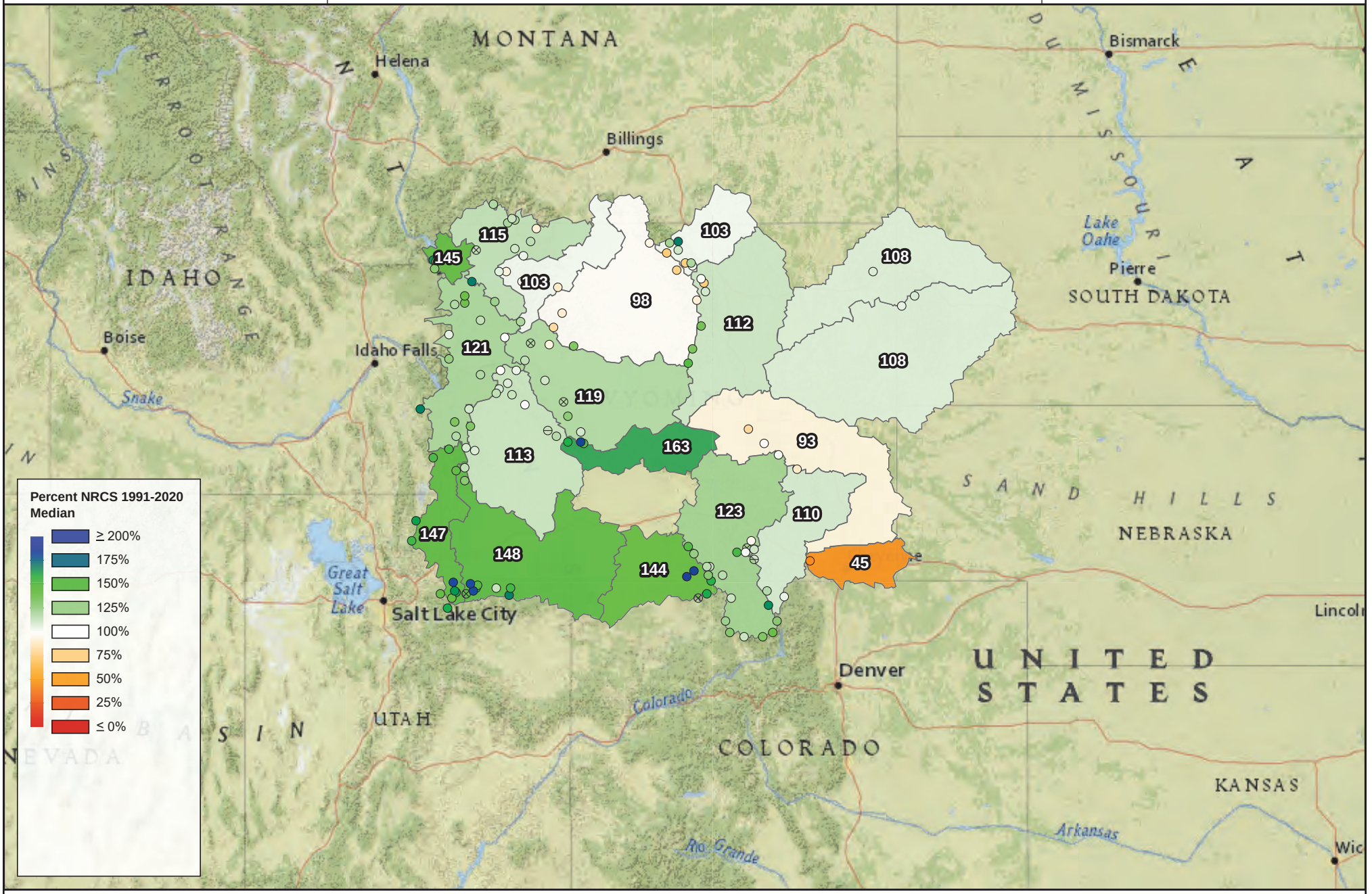
Author:
Richard Heim
NCEI/NOAA

droughtmonitor.unl.edu

Snow Water Equivalent	Percent NRCS 1991-2020 Median	January 1st, 2023

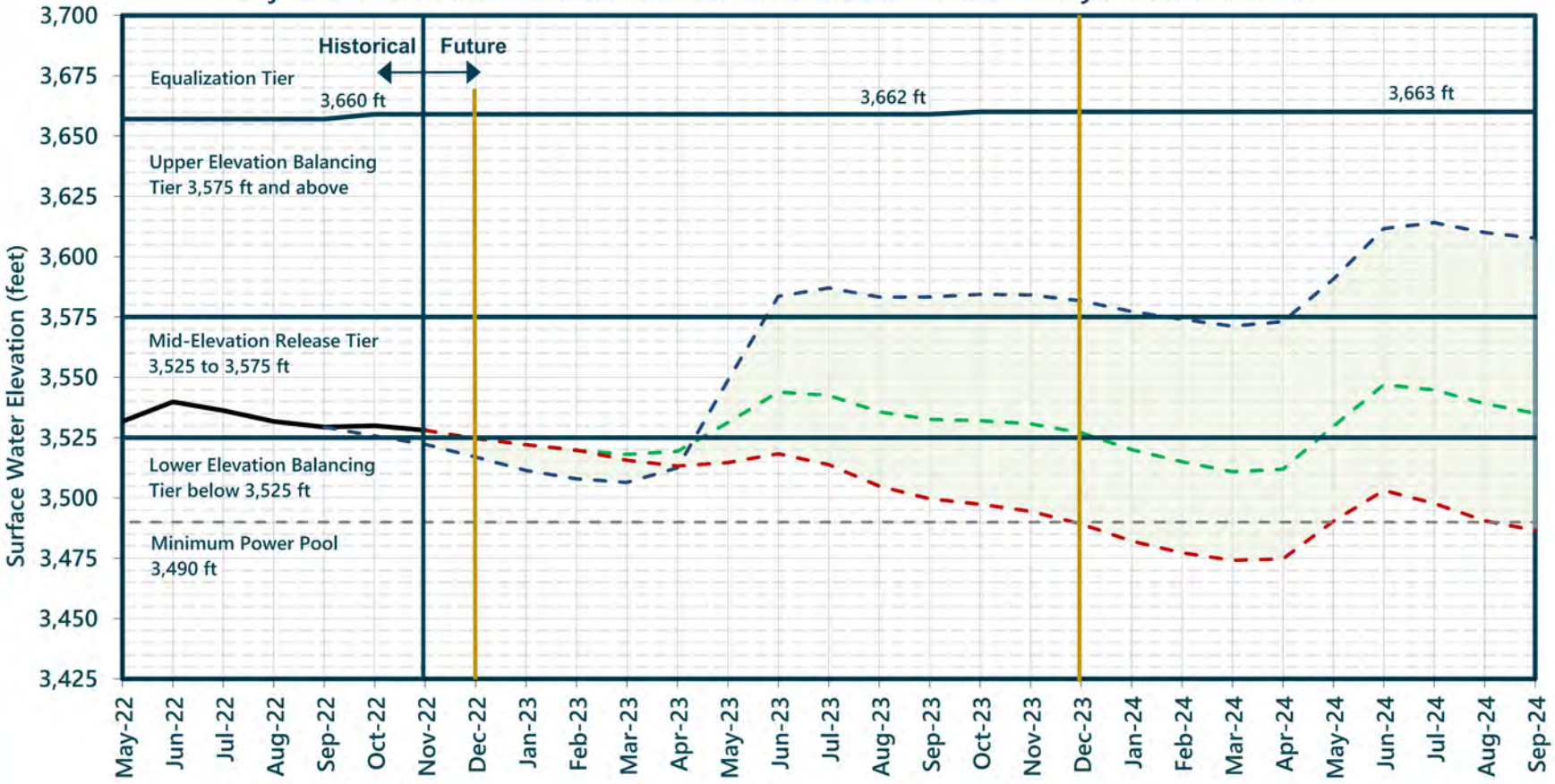


Snow Water Equivalent	Percent NRCS 1991-2020 Median	January 1st, 2023



Lake Powell End of Month Elevations[1]

Projections from the October and December 2022 24-Month Study Inflow Scenarios



Historical Elevations

October 2022 Maximum Probable Inflow with a Lake Powell release of 9.50 maf in WY 2023 and 9.00 maf in WY 2024

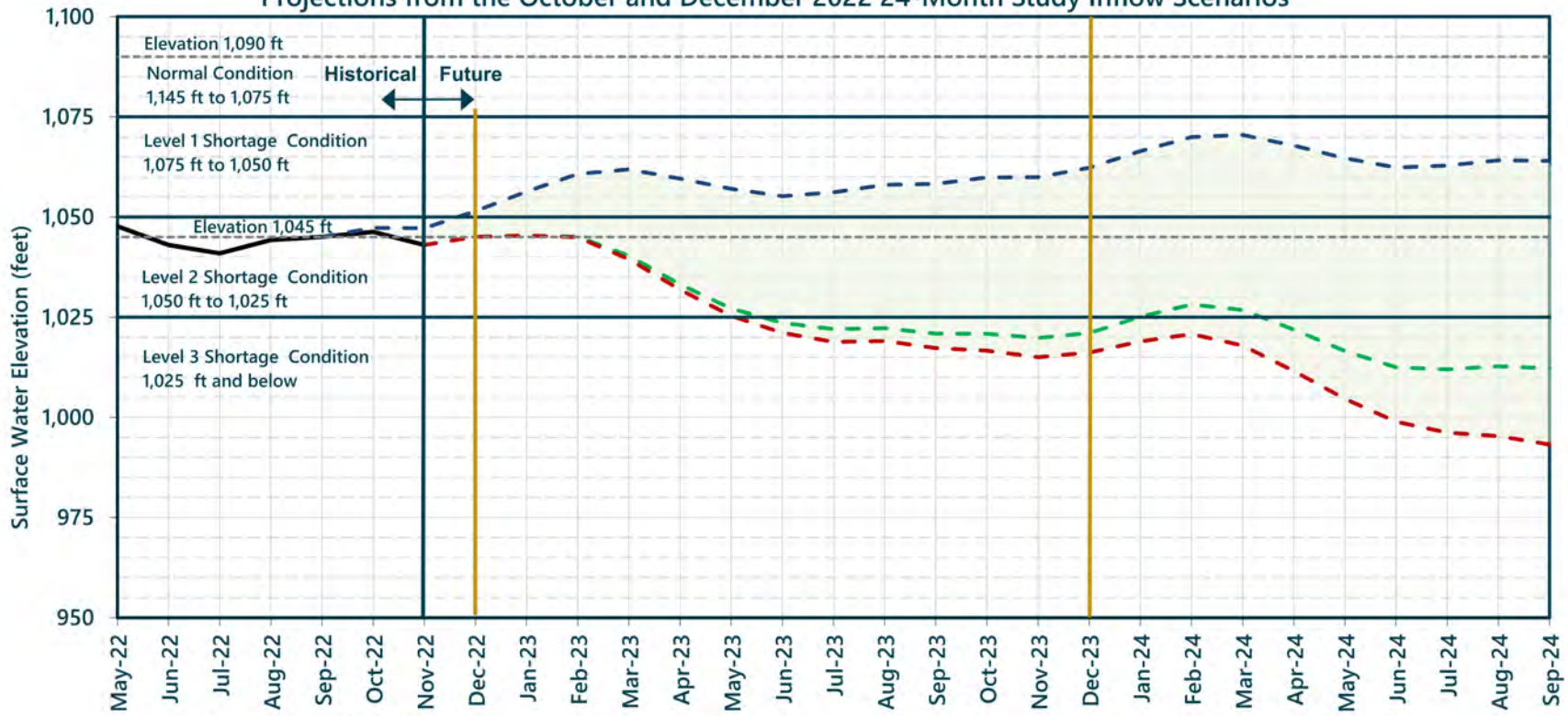
December 2022 Most Probable Inflow with a Lake Powell release of 7.00 maf in WY 2023 and 8.01 maf in WY 2024

December 2022 DROA Minimum Probable Inflow with a Lake Powell release of 7.00 maf in WY 2023 and WY 2024

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

Lake Mead End of Month Elevations[1]

Projections from the October and December 2022 24-Month Study Inflow Scenarios



Historical Elevations

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December 2022 Most Probable Inflow with a Lake Powell release of 7.00 maf in WY 2023 and 8.01 maf in WY 2024

December 2022 DROA Minimum Probable Inflow with a Lake Powell release of 7.00 maf in WY 2023 and WY 2024

[1] Projected Lake Mead end of month physical elevations from the latest 24-Month Study inflow scenarios.
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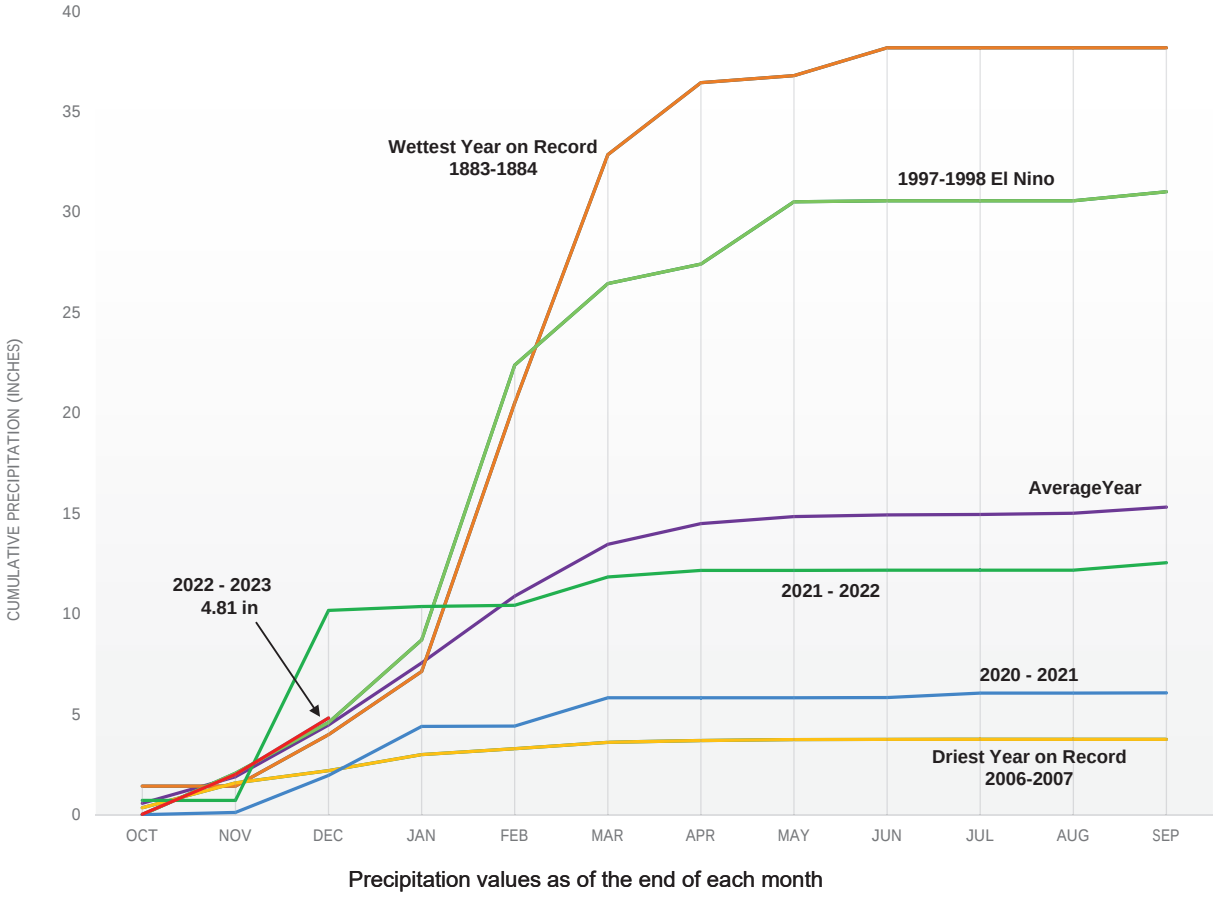
Los Angeles Civic Center Precipitation



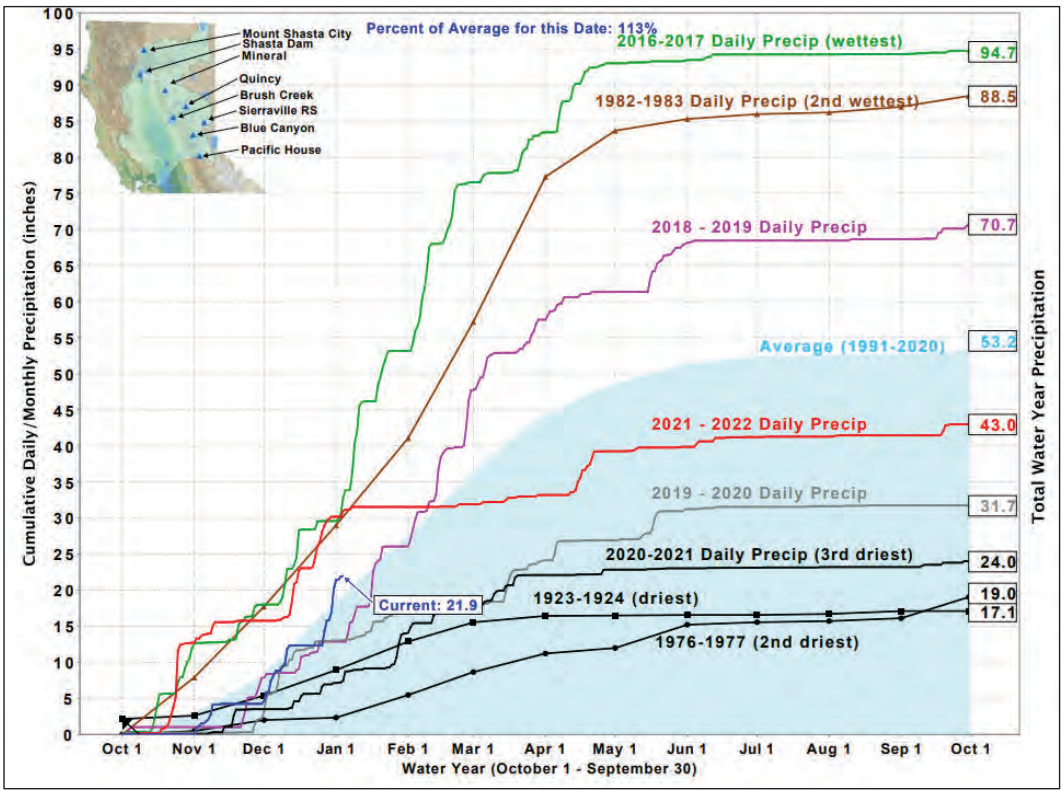
Precipitation values as of the end of each month

Precipitation at Six Major Stations in Southern California

From October 1, 2022, to December 31, 2022

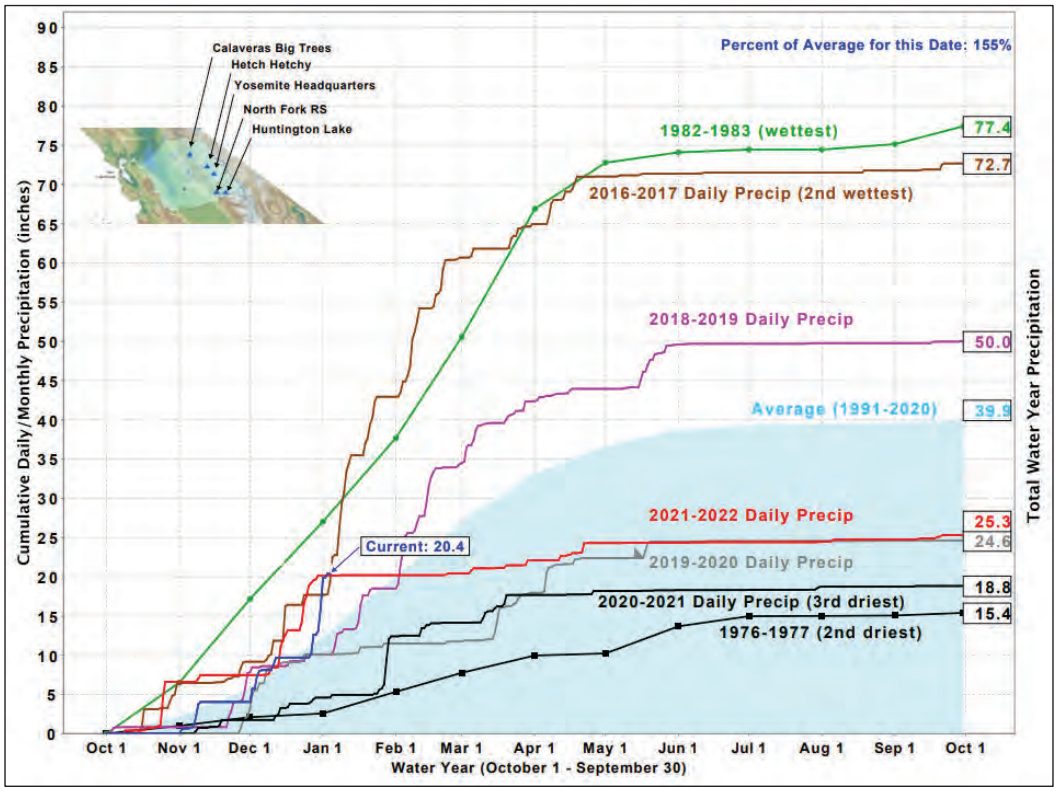
Station	Precipitation in inches			
	Dec	Oct 1 to Dec 31	Average to Date	Percent of Average
San Luis Obispo	4.05	4.62	7.06	65%
Santa Barbara	3.35	4.45	5.03	88%
Los Angeles	2.81	4.81	4.46	108%
San Diego	1.55	2.71	3.25	83%
Blythe	0.18	0.34	1.11	31%
Imperial	0.05	0.12	0.94	13%

Northern Sierra Precipitation: 8 Station Index



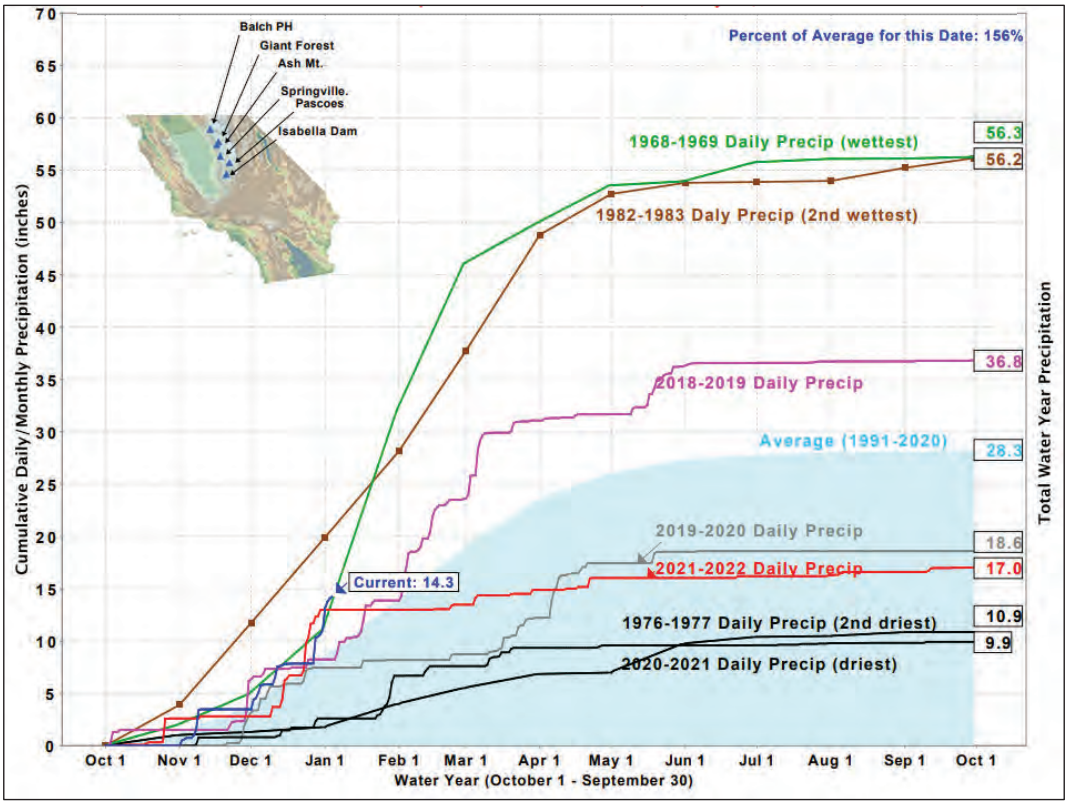
California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_ESI.pdf

San Joaquin Precipitation: 5 Station Index

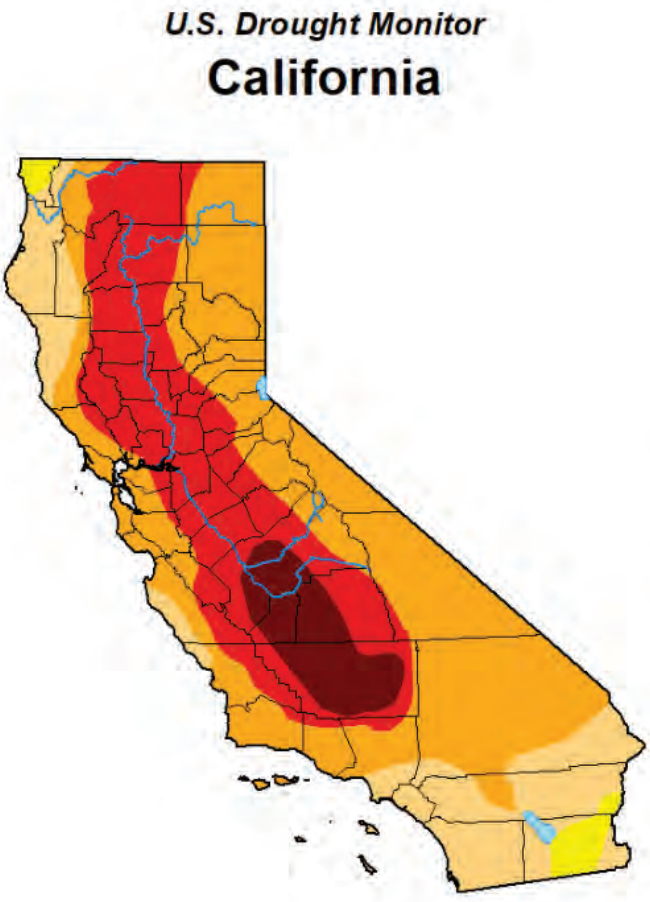


California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_FSI.pdf

Tulare Basin Precipitation: 6 Station Index



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



December 27, 2022
(Released Thursday, Dec. 29, 2022)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	97.94	80.56	35.50	7.16
Last Week 12-20-2022	0.00	100.00	97.94	80.56	35.50	7.16
3 Months Ago 09-27-2022	0.00	100.00	99.76	94.01	40.91	16.57
Start of Calendar Year 01-04-2022	0.00	100.00	99.30	67.62	16.60	0.84
Start of Water Year 09-27-2022	0.00	100.00	99.76	94.01	40.91	16.57
One Year Ago 12-28-2021	0.00	100.00	100.00	86.28	32.93	0.84

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:
Richard Heim
NCEI/NOAA

droughtmonitor.unl.edu

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

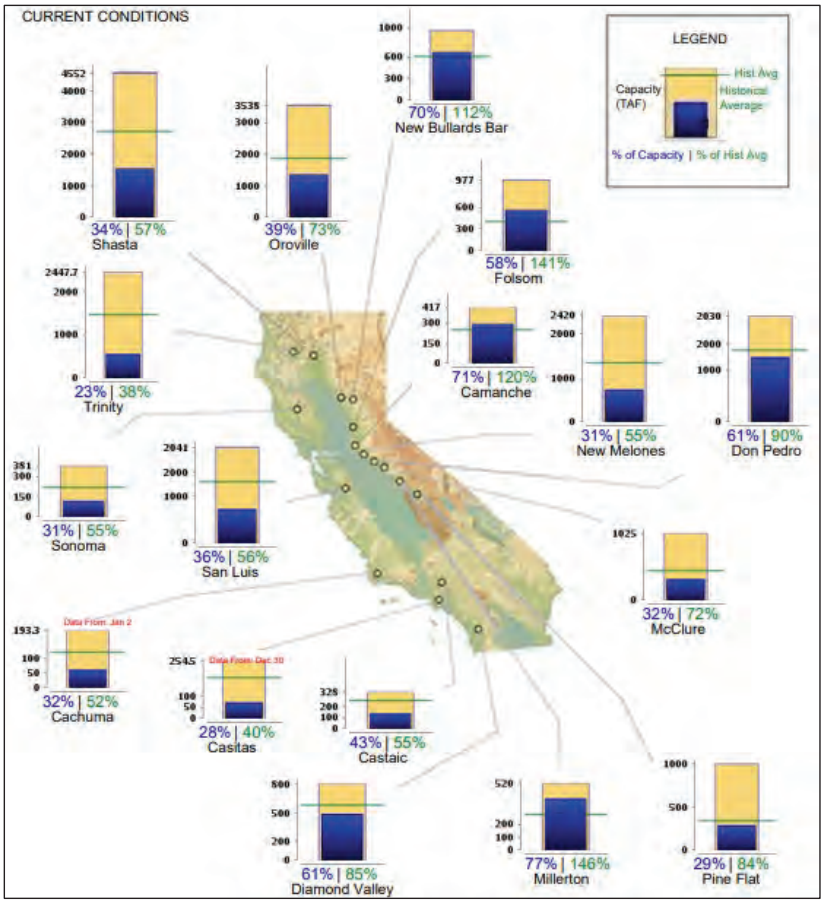
Comparison of SWP Water Storage

Reservoir	Capacity	2022 Storage (acre-feet) As of Jan-1	2022 Storage (acre-feet) % of Cap.	2023 Storage (acre-feet) As of Jan-1	2023 Storage (acre-feet) % of Cap.
Frenchman	55,475	29,891	54%	31,258	56%
Lake Davis	84,371	43,777	52%	40,831	48%
Antelope	22,564	14,746	65%	17,872	79%
Oroville	3,553,405	1,368,250	39%	1,315,448	37%
TOTAL North	3,715,815	1,456,664	39%	1,405,409	38%
Del Valle	39,914	39,555	99%	45,547	114%
San Luis	2,027,835	623,461	31%	701,433	35%
Pyramid	169,901	153,352	90%	156,294	92%
Castaic	319,247	147,727	46%	137,732	43%
Silverwood	74,970	68,512	91%	68,001	91%
Perris	132,614	106,957	81%	92,103	69%
TOTAL South	2,764,481	1,139,564	41%	1,201,110	43%
TOTAL SWP	6,480,296	2,596,228	40%	2,606,519	40%

As of December 1, 2022, the initial Table A allocations for SWP contractors is 5%

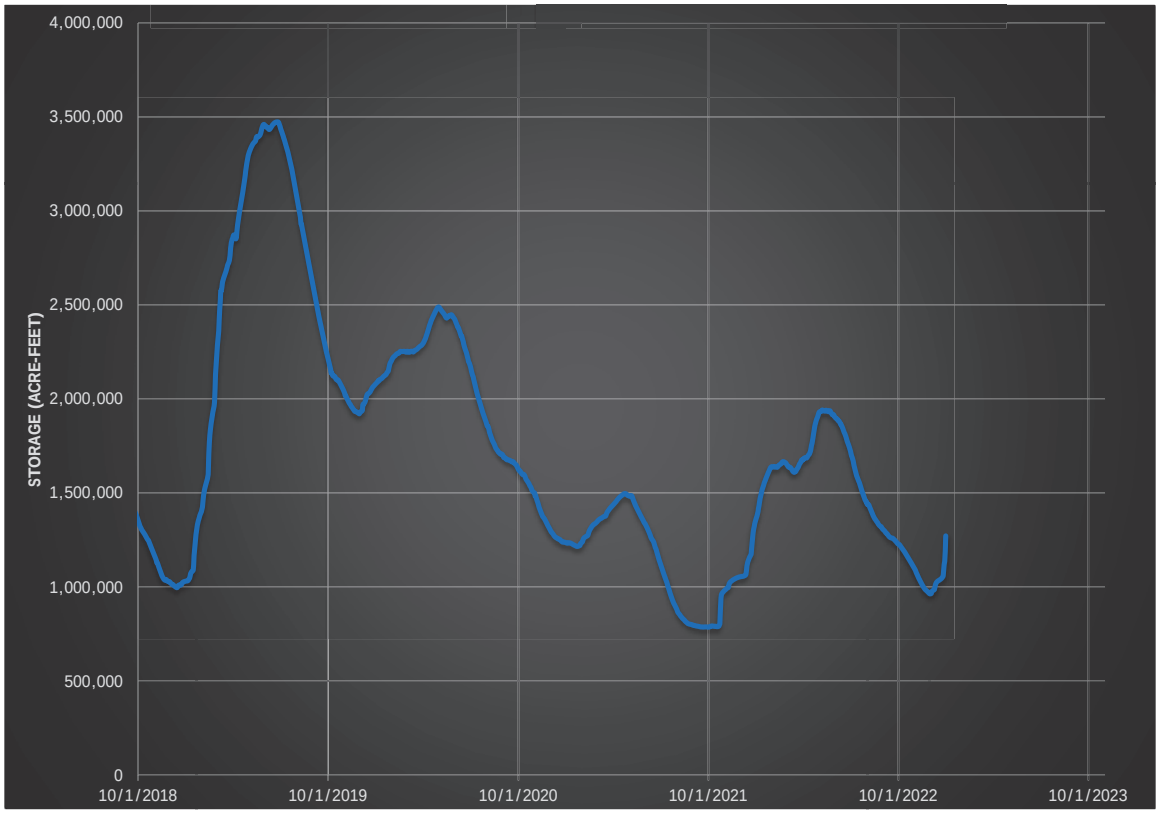
CA Major Water Supply Reservoirs Current Conditions

(as of January 4, 2023)



California Data Exchange Center
https://cdec.water.ca.gov/resapp/RescondMain

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



Statewide Snow Water Content
Current Regional Snowpack (1/4/2023)

NORTH	
Data as of January 4, 2023	
Number of Stations Reporting	33
Average snow water equivalent (Inches)	13.9
Percent of April 1 Average (%)	49
Percent of normal for this date (%)	133

CENTRAL	
Data as of January 4, 2023	
Number of Stations Reporting	53
Average snow water equivalent (Inches)	19.2
Percent of April 1 Average (%)	70
Percent of normal for this date (%)	182

SOUTH	
Data as of January 4, 2023	
Number of Stations Reporting	33
Average snow water equivalent (Inches)	17.3
Percent of April 1 Average (%)	77
Percent of normal for this date (%)	205

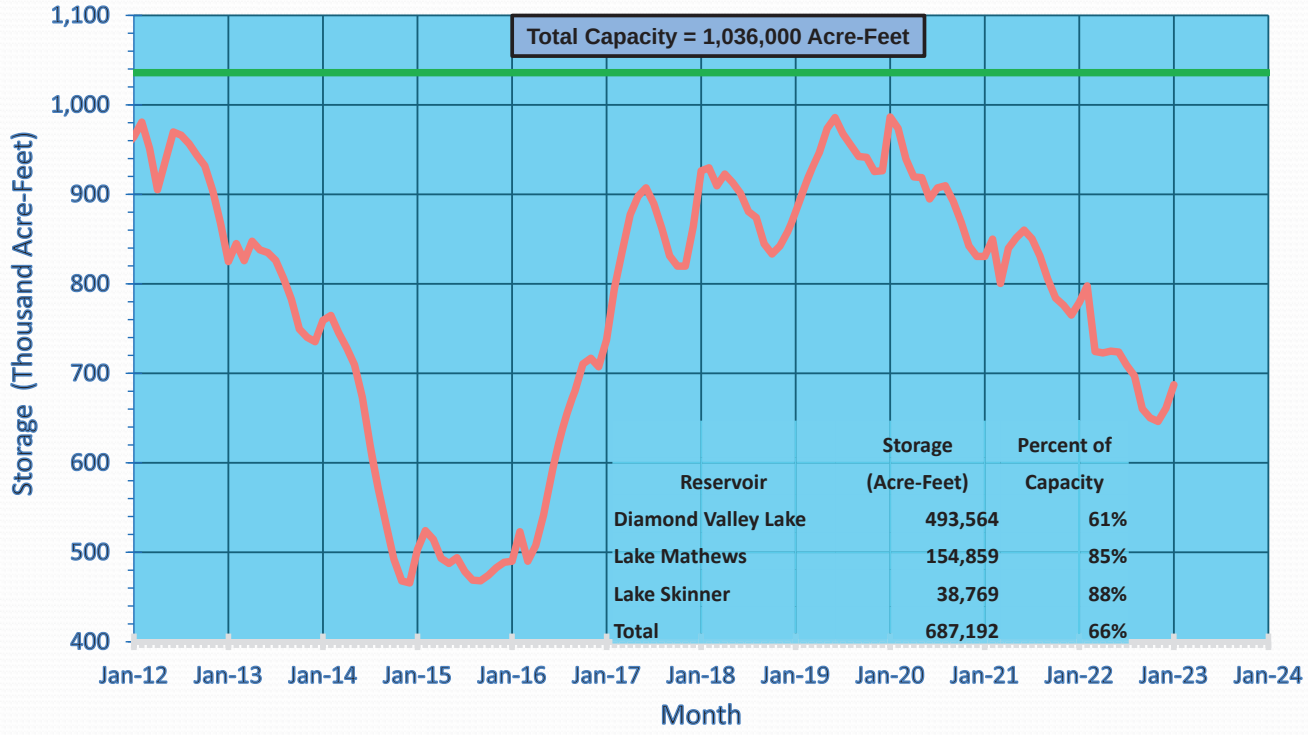
STATE	
Data as of January 4, 2023	
Number of Stations Reporting	119
Average snow water equivalent (Inches)	17.2
Percent of April 1 Average (%)	65
Percent of normal for this date (%)	173

Statewide Average: 65% / 173%

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

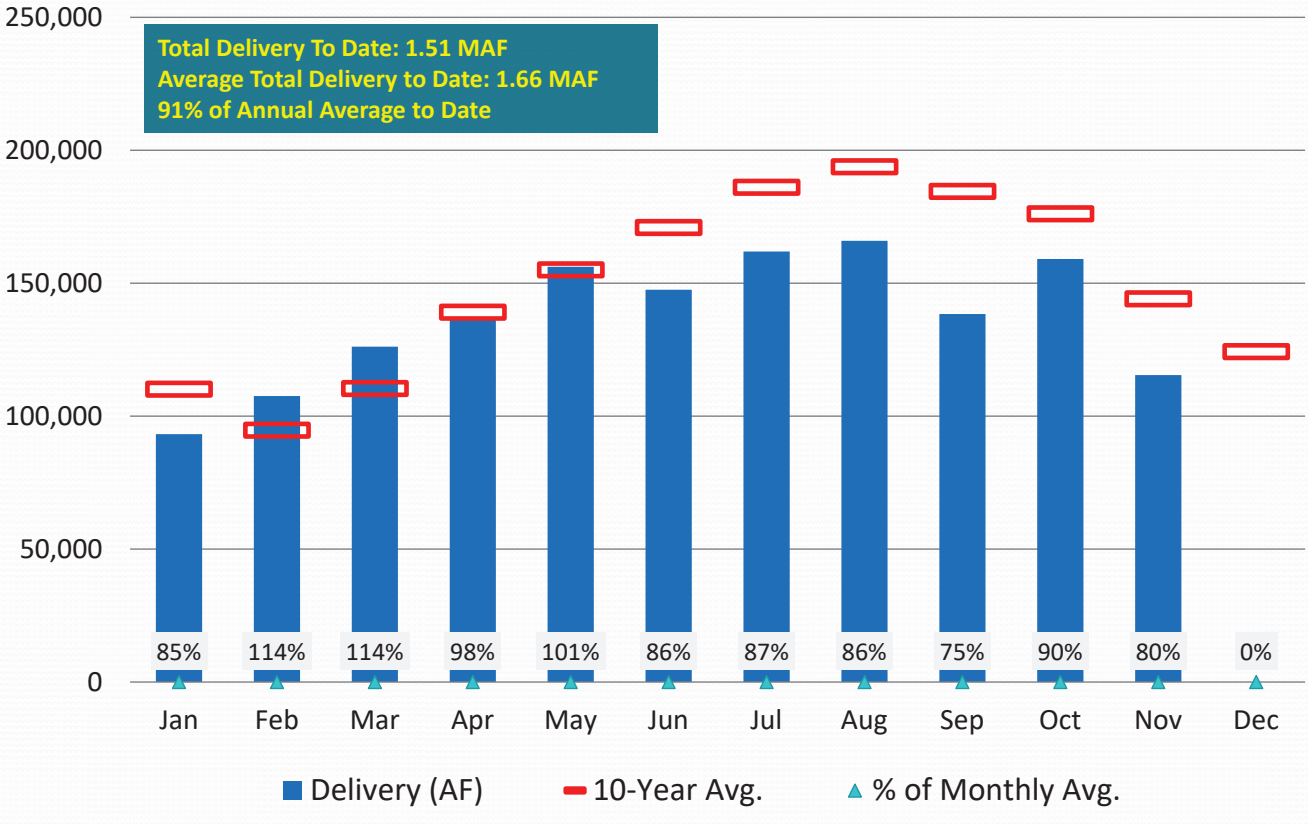
MWD's Combined Reservoir Storage as of January 1, 2023

Lake Skinner, Lake Mathews, and Diamond Valley Lake



Reservoir	Storage (Acre-Feet)	Percent of Capacity
Diamond Valley Lake	493,564	61%
Lake Mathews	154,859	85%
Lake Skinner	38,769	88%
Total	687,192	66%

2022 Water Deliveries to Agencies (AF)



December 20, 2022

Via Electronic Mail

Reclamation 2007 Interim Guidelines SEIS Project Manager
U.S. Bureau of Reclamation
Upper Colorado Basin Region
125 South State Street, Suite 8100
Salt Lake City, Utah 84138

To Whom It May Concern:

The purpose of this letter is to provide the U.S. Bureau of Reclamation (Reclamation) with the comments of the technical staff of the Colorado River Board of California[1] (Board) associated with the November 17, 2022 *Federal Register* Notice (87 FR 69042-69045) regarding the Notice of Intent (NOI) to Prepare a Supplemental Environmental Impact Statement (SEIS) for the December 2007 Record of Decision (ROD) entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (2007 Interim Guidelines). The comments provided below were developed in coordination and consultation with the California agencies represented on the Board and are generally focused on Reclamation's evaluation of potential modifications to Sections 2 and 6 (Lake Mead and Lake Powell operations, respectively) of the 2007 Interim Guidelines ROD.

Board staff appreciate Reclamation's on-going efforts to chart a path forward for the Colorado River Basin, which is facing unprecedented low water supply conditions. The current challenge will require both a short-term effort of extraordinary water use reductions as well as longer-term adjustments to water use and expectations in acknowledgement of climate-change impacts, particularly aridification, that have been observed across the Basin in recent decades. This effort cannot be achieved by one state, basin, or water user in isolation, and we ask for the Reclamation's continued commitment, in the proposed SEIS and parallel efforts, to ensuring that all Basin water users meet their obligations and equitably contribute to the solutions that meet these challenges.

As Reclamation is aware, on December 13, 2022, California's water users committed to work closely with representatives of the seven Basin states and other stakeholders across the Basin

[1]Established in 1937, the Board protects the interests and rights of the agencies and citizens of the State of California to the water and power resources of the Colorado River System. The ten-person Colorado River Board is comprised of representatives from the Coachella Valley Water District, Imperial Irrigation District, Los Angeles Department of Water and Power, The Metropolitan Water District of Southern California, Palo Verde Irrigation District, San Diego County Water Authority, California Department of Water Resources, California Department of Fish and Wildlife, and members of the public.

with the goal of developing a consensus-based "Framework Alternative" before the end of January 2023 that can be considered in the SEIS process. Whether this proposal materializes or not, there are several key factors that the Board's technical staff believe should be considered and evaluated in the draft SEIS.

First, deliveries from the Upper Basin to the Lower Basin from Glen Canyon Dam are critical in determining water available for uses in both the Upper and Lower Basins. While Board staff understands the need to evaluate a wide range of potential releases from Glen Canyon Dam in preparation for extraordinary circumstances, we are deeply concerned about the potential cascading negative impacts to storage in Lake Mead if annual releases from Glen Canyon Dam are reduced below 7.0 million acre-feet (MAF), as highlighted in Reclamation's SEIS scoping meeting presentations on November 29th and December 2nd. Reclamation should consider the operation of Glen Canyon Dam in the context of compliance with the 1922 Colorado River Compact, which establishes delivery obligations in Article III(c), III(d), and III(e). Meeting the terms of the Compact was one of the primary purposes for which Glen Canyon Dam was constructed. If upstream efforts, both administrative and operational, are insufficient to meet these obligations while preserving the integrity of the facility's infrastructure, Reclamation should ensure that Glen Canyon Dam is able to safely and reliably operate below elevation 3,490'. Glen Canyon Dam releases below certain thresholds (i.e., 82.3 or 75 MAF over the running ten years) and annual releases less than 7.0 MAF should be regarded as a last resort only employed when all other options have been exhausted.

Secondly, in the Lower Basin, considerable attention has been paid to how water should be allocated when supply is insufficient. Many pieces of the Law of the River, the collection of laws, agreements, and policies that dictate how the Colorado River Basin's water users and facilities operate, were developed with the express purpose of providing the Secretary with specific direction for how the Basin should be managed in times of insufficient water supply or low runoff. To discard or undermine these measures the first time they are needed risks destabilizing the entire structure of the Law of the River. The Secretary's implementation of shortage in the Lower Basin should be guided by the Law of the River and consistent with existing commitments.

Nevertheless, the Colorado River Basin has demonstrated many times that the Law of the River can be supplemented to provide flexibility, as demonstrated by agreements such as the 2019 Drought Contingency Plans and California's October 2022 proposal to create additional conserved water supplies. Through these two actions alone, California water agencies have collectively developed a proposal to conserve up to 750,000 acre-feet per year of water use, even though it has senior water rights on the Colorado River. While we hope a consensus-based agreement is developed in the coming weeks that comprehensively supplements the Law of the River, we respectfully request Reclamation to continue providing incentives to agencies who commit to voluntarily conserve water or develop transfers to ensure that critical human health and safety needs can be met while also respecting the priority system and prior commitments. Finally, as demonstrated by California's 2003 Quantification Settlement Agreement and other intra-state water transfer agreements, each state should provide leadership to address the

critical water supply needs of its junior priority water users. California remains committed to that process as further water use reductions may be required in order to address the challenging hydrology and the need to rebuild some storage in the reservoir system.

The entire suite of Lower Basin actions, including existing water use reductions through voluntary agreements, should be considered when determining what additional mandatory reductions in use may be required in the Lower Basin. During the interim period, the sum of these actions should at a minimum fully account for the predictable system losses that occur on an annual basis. Both the magnitude of shortage reductions and the elevation at which shortages are triggered should be increased, to limit the duration of and occurrence of Lake Mead declining below critical reservoir elevations.

Finally, some across the Basin have advocated for Lower Basin water users to be individually assessed for reservoir evaporation, seepage, and other system losses. The Board recommends that these losses continue to be treated as a diminution of available annual supply, which can then be met through application of the Law of the River as supplemented by voluntary agreements. Any other application of losses may face considerable legal and technical challenges, and endanger existing water transfer agreements, which could interfere with voluntary proposals and halt forward momentum at a time when collaboration and decisive action is most needed. This approach could also destabilize elements of the existing Law of the River that continue to provide certainty for water supply reliability across the Basin and, of particular concern to California's Colorado River water users, jeopardize programs within California that have allowed the state to live with significantly less water for decades.

The Board's technical staff appreciates the opportunity to provide comments in response to the NOI and looks forward to participating further in the process to develop the draft SEIS evaluating potential modifications to the 2007 Interim Guidelines ROD. We also appreciate Reclamation's continued leadership in coordinating and communicating information to stakeholders across the Basin and the general public as we all work to address the significant challenges of responding to diminishing water supply conditions in the Colorado River System. We continue to encourage and support the use of a collaborative consensus-based decision-making process that respects existing agreements, honors prior commitments and obligations, and continues to utilize and develop flexibility to equitably meet critical water supply needs.

Please feel free to contact me, or Mr. Rich Juricich, at (818) 254-3203 if you have any questions or require additional information.

Sincerely,

Christopher Harris
Executive Director

COACHELLA VALLEY WATER DISTRICT
Established in 1918 as a public agency

GENERAL MANAGER
Jim Barrett

CLERK OF THE BOARD
Sylvia Bermudez

ASSISTANT GENERAL MANAGER
Robert Cheng

ASSISTANT GENERAL MANAGER
Dan Charlton

VIA EMAIL AT CRINTERIMOPS@USBR.GOV AND U.S. MAIL

December 20, 2022

Reclamation 2007 Interim Guidelines SEIS Project Manager
Upper Colorado River Basin Region
125 South State Street, Suite 8100
Salt Lake City, Utah 84138
CRinterimops@usbr.gov

Dear Ms. Johnson:

Subject: Supplemental Environmental Impact Statement (SEIS) Scoping Comment

The Coachella Valley Water District (CVWD) appreciates the opportunity to comment on the Notice of Intent to Prepare a Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (NOI). 87 FR 69043 (November 17, 2022). As a willing and active participant on the River, CVWD appreciates the full magnitude of hardship that the hydrology has created for the Colorado River users, and the significant work that is in front of us to maintain the viability of the system.

CVWD recognizes that if the low run-off conditions into Lake Powell and Lake Mead continue, the U.S. Bureau of Reclamation's (Reclamation) multiple objectives of protecting dam infrastructure, generating hydropower, and providing full water deliveries may require operating Glen Canyon and/or Hoover Dam under conditions not contemplated in the 2007 Interim Guidelines Record of Decision. CVWD also cautions that any modifications to Lake Powell and Lake Mead operations need to consider and preserve the intricate web of applicable federal laws, interstate compacts, decrees, intrastate agreements, and water delivery contracts that govern reservoir operations and water deliveries.

As part of the NOI process, it is anticipated three primary alternatives will be considered by Reclamation -- 1) No Action, 2) Reservoir Operations Modification, and 3) Framework Agreement. CVWD strongly supports the Framework Agreement Alternative as it is a consensus-based set of actions that builds on the existing framework for Colorado River Operations, including commitments included in the 2019 Drought Contingency Plan (DCP) and under Component 1a (voluntary compensated conservation program) of the 2022 Inflation Reduction Act (IRA).

At the recent Basin States Principals meeting (December 13, 2022), there was unanimous agreement to work towards a consensus-based decision. There have been various proposals to stabilize and ultimately to increase elevations in Lake Powell and Lake Mead which need careful consideration. In general, the concepts fall within the goals of achieving a set of agreed-on operating volumes within:

- the Colorado River system (Basin-wide),
- the Upper and Lower Basins, and
- the States

CVWD is committed to actively engaging in these discussions, and specifically supports the following concepts that balance the need to extend the operations of the reservoirs while recognizing the importance of preserving existing laws and agreements.

1) Use the "safe-yield" approach as described by comments submitted by the Colorado River Board of California.
2) Use a voluntary, compensated framework to achieve the desired conservation goals.
3) Analyze a range of hydrologic scenarios to allow for adaptive management of a full spectrum of operating conditions.
4) Limit the minimum deliveries at Glen Canyon Dam to 7.0 million acre-ft (maf) only as an option of last resort to ensure compliance with the obligations of the 1922 Colorado River Compact.
5) Recognize the importance of balancing the needs of the human health and safety (HHS) water while respecting the priority system established by existing laws and agreements.
6) Allow the discussion that is needed to achieve the concept mentioned above to take place within each State to work within the framework of existing agreements.

CVWD believes that the pathway to success for the preferred alternative should build on and expand the DCP parties' commitment to collectively work together to protect the reservoirs, including additional and/or new approaches to meet the DCP goals. CVWD has been a willing participant with our partners on the River and Reclamation and is committed to our full engagement on this important assignment. Please contact Dr. Robert Cheng at 760-398-2661 or rcheng@cvwd.org if you have questions or comments.

Sincerely,

J. M. Barrett
General Manager

December 20, 2022

Genevieve Johnson
2007 Interim Guidelines SEIS Project Manager
US Bureau of Reclamation, Upper Colorado Basin Region
125 South State Street, Suite 8100
Salt Lake City, Utah 84138
CRinterimops@usbr.gov

Dear Ms. Johnson,

The Imperial Irrigation District (IID) respectfully submits these scoping comments regarding the Bureau of Reclamation's Notice of Intent to Prepare a Supplemental Environmental Impact Statement (SEIS) for the December 2007 Record of Decision Entitled *Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead* (2007 Interim Guidelines), published on November 17, 2022, in the Federal Register (87 FR 69042-69045).

IID appreciates this opportunity to provide input to the Bureau of Reclamation (Reclamation) as it seeks to modify the 2007 Interim Guidelines to respond to the Colorado River hydrology and declining water elevation levels in Lakes Powell and Mead resulting from a number of factors, including the prolonged drought and low runoff conditions accelerated by climate change. IID recognizes the severity of the situation and the difficult task before Reclamation. These comments are intended to be constructive and informative to Reclamation in the identification and analysis of alternatives to include in the SEIS prior to making significant and expeditious decisions to protect the Colorado River system and the interests of the millions of people relying on this water supply.

The NOI has specifically identified Reclamation's intention to modify the 2007 Interim Guidelines in three areas: (1) Lake Mead shortage conditions to decrease the quantity of water apportioned to the Lower Basin states (Section 2.D), (2) Glen Canyon Dam reservoir release schedules and coordinated operations to modify and/or reduce the quantity of water released (Sections 6.C and 6.D), and (3) the mid-year review process for reduced deliveries from Lake Mead (Section 7.C). The near-term response actions under development by Reclamation are not intended to replace the post-2026 planning efforts being conducted as a separate process, but to address near-term unacceptable operational risks to Glen Canyon and Hoover Dams as a result of low runoff conditions anticipated for the upcoming 2023 and 2024 operational years.

Background information and context are imperative to identifying the alternatives that provide meaningful and timely paths forward. IID is the sole regional raw water supplier for the Imperial

Valley. Unlike most Colorado River water users that have access to other water supply sources, IID's only water supply is the River. This rural community consists of approximately 180,000 residents that comprise largely disadvantaged communities, with an annual per capita income of only slightly above $18,000. Nevertheless, Imperial Valley is a prime agricultural region in California consisting of nearly 500,000 acres of highly productive agricultural land with year-round sunshine critical to providing perennial food supplies for the nation. This is especially important during times of international conflict and other instabilities affecting food supply chains and consumer prices. Since its inception in 1911, IID has supported its community's critical national agricultural production role by delivering its Colorado River supplies to Imperial Valley growers, who helped to establish IID's beneficial use of the River for many years before that.

The substantial volatility of annual Colorado River flows, episodic floods and droughts, including sustained and severe drought, and the difficulty of stakeholders to address sharing the River have been well documented historically. It is for these reasons, in part, that the Glen Canyon and Hoover Dams were built along with other River infrastructure, and also why a responsive hierarchy of priority for use and users was established in the foundational agreements and laws upon which the Law of the River was built. Moreover, the Law of the River has repeatedly resulted in difficult, but collaborative efforts to develop additional tools and mechanisms to work within its framework to address and respond to various needs and challenging situations. This is similar to what Reclamation and Colorado River water users face now, albeit on a greater scale. The 2007 Interim Guidelines are a prime example of such collaborative efforts. While Reclamation will receive proposals citing the severity of the current situation as the basis to significantly modify or set aside certain agreements and laws through modifications of the 2007 Interim Guidelines, Reclamation must consider what modifications are feasible to impose and implement, will accomplish an expeditious approach to address immediate efforts to revise Glen Canyon and Hoover Dams operations in 2023 and 2024 (and potentially 2025 and 2026), and provide a foundation for further collaborative efforts, rather than set the stage for adversarial litigious approaches going forward.

Reclamation is soliciting comments for the scope of the SEIS and has initially identified the following three primary alternatives: the No Action Alternative, the Framework Agreement Alternative (based on a consensus-based set of actions) and the Reservoir Operations Modification Alternative (federal regulatory actions or some combination of voluntary and regulatory actions). While IID is actively involved in ongoing discussions within California and the Basin States to develop a consensus approach, to date this approach remains elusive. IID offers these scoping comments for consideration in the SEIS as Reclamation develops a Proposed Action to modify the 2007 Interim Guidelines:

- Any Proposed Action must adhere to the Law of the River to result in an implementable path forward that allows expeditious operational decisions and actions by Reclamation in 2023 and 2024, and likely extending into 2025 and 2026. This prerequisite is illustrated in all scoping comments that refer to certain laws and agreements that various stakeholders and agencies are requesting be adhered to in the development of the SEIS and the modifications to the 2007 Interim Guidelines. Failure to utilize over a century of

laws and agreements developed as the foundation to address this very situation creates instability and an unpredictable future. Reclamation cannot modify or set aside the Law of the River without having broad and far-reaching impacts that would not only need to be addressed in the SEIS, but would require far more than modifications to the 2007 Interim Guidelines. The SEIS should analyze the implementation of not only the 2007 Interim Guidelines and the 2019 Colorado River Drought Contingency Plan Authorization Act (Pub. L. 116-14) (2019 DCP Act), but also the 1922 Colorado River Compact, 1928 Boulder Canyon Project Act (BCPA), water delivery contracts under Section 5 of the BCPA, the 1968 Colorado River Basin Project Act, the 2003 Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement (FQSA), and the 2006 Consolidated Decree in *Arizona v. California*.

- Any Proposed Action cannot be based on modeling that uses unvetted assumptions with little or no analysis or input from impacted agencies and stakeholders and/or mass balance modeling that arbitrarily apportions reductions in deliveries based on various "equitable" or "proportional" determinations, disregarding all other factors that would inform an implementable approach. While such proposed alternatives may identify a logical basis for their assumptions and determinations, if the approach is not constructive, reasonable and implementable due to other factors they should not be considered or included.

- Basin-wide problems require basin-wide solutions. While IID appreciates that the Upper Basin States operate without the benefit of a reservoir system upstream of certain users and may not have fully developed their water uses, all water users must be a part of any actions to protect the Colorado River even if it largely consists of not exacerbating the supply-demand imbalance with new demands on the River system. Conservation, recycling and reuse along with intrastate and regional partnerships have demonstrated that urban growth can occur without increasing water demands. This includes binational cooperation and water conservation actions/demand reductions from Mexico, who have been supportive partners throughout the current drought with Minutes Nos. 319 and 323. Given the intractability of the last two decades of low inflow patterns, both United States and Mexico water users must be part of any Proposed Action by Reclamation identified in the SEIS.

- Impacts to the Salton Sea must be considered in the SEIS to quantify the environmental and public health impacts resulting from any Proposed Action identified in the SEIS that directly or indirectly affects the Sea, this critical basin resource. Reclamation must recognize that as the largest landowner at the Salton Sea, the impacts to and responsibility of federal agencies for this resource will increase and must be addressed.

- Impacts on rural communities must be specifically identified and analyzed in the SEIS to ensure that the long-standing disenfranchisement of these smaller agricultural communities and/or economically disadvantaged communities, often caused by pressuring the movement of local water supplies to wealthy and more populous (but resource poor) areas, is not perpetuated. Disadvantaged communities, including

Imperial Valley, should not bear disproportionate impacts from a federally Proposed Action identified in the SEIS targeting these water supplies. Historically (and inappropriately) these communities have been referred to as "agricultural reservoirs", and they should not be the basis for any Reclamation Proposed Action.

- The Proposed Action identified in the SEIS should not operationally favor Lake Powell at the expense of Lake Mead. Reclamation must develop a measured, coordinated approach building off of the 2007 Interim Guidelines. However, if water supply conditions decline to a point where only one reservoir is viable – Lake Mead must be prioritized given its role in water delivery operations serving Arizona, Nevada, California and Mexico. Additionally, an adaptive management approach must be incorporated into any Proposed Action by Reclamation based on the hydrology to ensure reservoir water storage capacity is rebuilt, but with some flexibility to adjust as inflow conditions ebb and flow. IID recognizes the significance of the situation and that the sustained drought impact on the Colorado River is of international, national, regional and local importance. IID also recognizes that the hydrologic conditions of the River may not fluctuate significantly in the near-term. Nevertheless, a sustainable and implementable approach, must be adaptive and responsive to changing conditions.

- IID believes that a consensus alternative is or should be the active goal of all Basin States, tribal water users and other stakeholders. In the event that such a consensus alternative cannot be developed, Reclamation's Proposed Action should include and allow for voluntary water conservation actions that provide system benefits and avoid protracted litigation. Voluntary water conservation actions, particularly from senior priority water users such as IID, funded by federal resources including the Inflation Reduction Act can provide significant, reliable and measurable elevation building benefits for the River system. Voluntary water conservation has been dismissed as unreliable and not capable of resulting in significant volumes of conserved water. However, pursuant to the Quantification Settlement Agreement (QSA), IID has implemented water conservation programs for 20 years resulting in over 7.2 million acre-feet of conservation and is currently conserving approximately 500,000 acre-feet of water annually. The QSA cannot and should not be disregarded because it was initiated 20 years ago. Significant voluntary water conservation could be accomplished in other areas. Reclamation has identified the immediate need for changes to River operations as early as 2023. With such a pressing timeline, all voluntary water conservation proposals must be pursued and addressed in the SEIS.

- While a consensus alternative must be identified soon to be analyzed as such in the SEIS, the SEIS should not preclude further coordination, collaboration, or negotiations.

Reclamation specifically requested input on how human health and safety considerations can be more expressly integrated into Colorado River operational decision-making. IID agrees that human health and safety must be addressed in operational decision-making. However, contrary to the perspectives of large urban areas that have been complicit in allowing growth to exceed their agencies' water supplies, IID encourages Reclamation to recognize that human

health and safety can and should be addressed within each Basin State in accordance with the laws and priorities within that state. The priority system was not designed to be implemented after certain water demands are "carved out," nor are such actions necessary despite the advocacy for such approaches by junior water rights holders seeking this opportunity to circumvent existing laws and agreements that already contemplate and address such needs. Reclamation's role to ensure human health and safety should be expressly addressed within operational decision-making only when and to the extent that a population's only supply of water is Colorado River water, such supply will be reduced under the priority system within that state such that human health and safety needs cannot be met and Reclamation is responsible for conveying that water to that population. Otherwise, the applicable laws, agreements and priority system within that state can and should be implemented as intended.

IID recognizes that if human health and safety needs are addressed within each state, according to its existing laws, agreements and priority system, certain voluntary partnerships and/or arrangements may need to be forged with other water users within that state and/or using other water supplies to meet those needs. If necessary, a strong state and/or federal presence can be used to help broker these negotiations. Such partnerships and/or arrangements which can be made may also involve alternative water supplies and resource options such as groundwater, stormwater recapture, desalination and reuse opportunities, as well as conservation options and transfer programs. Other water supply sources and these types of operational and supply mechanisms must be a part of the calculus when quantifying human health and safety needs. Such an approach can be done within the Law of the River and are not unusual in California, having developed regional, intrastate, interstate, and federal partnerships and collaborative efforts such as Pure Water Southern California, the Quantification Settlement Agreement, and the Poseidon Water Regional Recycled Water Program, just to name a few.

IID and its water users also encourage Reclamation to identify what comprises the human health and safety category – we feel strongly that critical health infrastructure considerations should include agricultural production and food safety. While drinking water, fire safety and sanitation needs often claim top priority – a food supply crisis would quickly correct that misperception. There is absolutely no doubt that highly productive agricultural regions are critical links in the nation's food supply chain and should be given due consideration in public health determinations. Recent world events have shown how fragile a nation can be if it has to import its food supply, and larger scale agricultural operations cannot simply be turned on and off like a spigot. Additionally, communities with no alternative water supplies or options that are solely dependent on the Colorado River due to their rural location and limited economic diversity must be given special consideration.

Should demand reductions necessitate human health and safety water considerations – the areas implementing emergency rules for this type of allocation must also be required to suspend all new project authorizations that require additional water supplies. Regions supplied by junior priority water users without adequate drought-proof reliability simply cannot be allowed to continue a pattern of unsustainable growth that increases water demands in the face of this level of hydrologic crisis.

Finally, given the critical situation and that Reclamation is seeking input to address human health and safety, it is incumbent on Reclamation to take all actions already agreed upon to address the worsening Colorado River conditions. Therefore, as soon as possible, Reclamation must take all steps necessary within the Lower Basin states and Mexico to implement the most aggressive shortage measures currently authorized to add 1,375,000 acre-feet to the system, more than 650,000 AFY above the 2023 contribution level of 721,000 AFY. This would include the maximum shortage reductions under the existing 2007 Interim Guidelines (500,000 AFY), the highest level of 2019 DCP Act contributions (600,000 AFY), and the full 275,000 AFY of Mexico's Minute No. 323 and Binational Water Scarcity Contingency Plan. In addition, the Upper Basin should suspend all plans to develop additional water supply diversion projects and maximize Drought Response Operations Agreement releases while accelerating and fully accomplishing its conservation efforts to generate verified and stored water.

IID appreciates the opportunity to provide these scoping comments, and encourages Reclamation and the Department of Interior to pursue implementable and expeditious actions to protect the Colorado River system. IID looks forward to continued engagement in the SEIS process and will continue to work with Reclamation to develop its voluntary drought protection plan proposal. IID is committed to continuing to work with any of our partners and stakeholders on the River to develop collaborative solutions that can be expeditiously implemented to stabilize the reservoirs and provide water supply reliability for its community and water users.

Sincerely,

Tina Shields

Tina Shields, PE
Manager, Water Department

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

December 20, 2022

Reclamation 2007 Interim Guidelines SEIS Project Manager
Upper Colorado River Basin Region
125 South State Street, Suite 8100
Salt Lake City, Utah 84138
CRinterimops@usbr.gov

Dear Ms. Johnson,

The Metropolitan Water District of Southern California (Metropolitan) appreciates the opportunity to comment on the Notice of Intent to Prepare a Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (NOI). 87 FR 69043 (November 17, 2022). As noted in the NOI, if the low runoff conditions into Lake Powell and Lake Mead continue the U.S. Bureau of Reclamation's (Reclamation) ability to protect dam infrastructure, make full water deliveries and generate hydropower could be significantly impacted and result in the need to operate Glen Canyon and/or Hoover Dam beyond the scope of the 2007 Interim Guidelines Record of Decision. Any modifications made to operations of Lake Powell and Lake Mead as part of this process should continue to be consistent with applicable federal laws, interstate compacts, and decrees. Modifications to reservoir operations also need to protect public health, safety, and welfare, protect stored Intentionally Created Surplus, and provide more certainty to water contractors through the end of the interim period.

Metropolitan's Interest in Operation of Lake Powell and Lake Mead

After being formed in 1928 by election and an act of the California legislature, Metropolitan's first project was to build the Colorado River Aqueduct (CRA). Metropolitan continues to bring Colorado River water into Southern California through the CRA. The Colorado River has been Metropolitan's most secure source of imported water since the district was formed. Over the decades, Metropolitan has worked to develop other sources of supply including the State Water Project and local resources projects, but the Colorado River continues to be a vital source of water for Metropolitan's 5,200 square mile service area. Since the 1990s Metropolitan has been taking steps to plan for and invest in ways to adapt to increased demand for Colorado River water as well as reduced supplies due to drought and climate change. Lake Powell and Lake Mead elevations have been declining since the drought started in 2000, but now the reservoirs are near critical elevations and forecast to continue to decline.

Metropolitan asks that Reclamation work with our agency to help us continue to assure a reliable source of high-quality water for the 19 million residents who live in the Metropolitan service area. Changes in the operation of Lake Powell and Lake Mead could significantly affect Metropolitan because of the complex interaction of Metropolitan's junior priority to Colorado River water in California, recent historically low State Water Project allocations, and impacts on agreements that Metropolitan has with more senior priority contractors in California, most of which were entered into to replace water Metropolitan relied on to fill the CRA before the 2003 Quantification Settlement Agreement. Metropolitan holds a contract with Reclamation pursuant to Section 5 of the Boulder Canyon Project Act for 550,000 acre-feet of Colorado River water annually, and an additional 662,000 acre-feet of excess supplies when not used by senior priority contractors in California or by Arizona or Nevada. Metropolitan also augments those supplies through transfer and exchange agreements with Colorado River contractors in California that hold more senior rights. Through this combination, Metropolitan has access to more than one million acre-feet of Colorado River water per year.

In addition to potential impacts to Metropolitan's water supplies, changes to the operation of Hoover Dam could significantly impact Metropolitan's supply of hydropower generated at Hoover Dam. Metropolitan's power supply contract is for 27.1 percent of the power generated at Hoover Dam, making Metropolitan the largest Hoover power contractor. The power supply contract has a 50-year term that expires in 2067.

The 2007 Interim Guidelines included provisions for Intentionally Created Surplus (ICS). Metropolitan invested millions of dollars in conservation projects to create ICS to be available as an additional source of supply in years when drought in California reduced Metropolitan's ability to meet demands with the State Water Project (SWP) allocation and Metropolitan's normal annual Colorado River supplies. This supply has been important in years like this year and during California's extreme drought in 2014-15. While the Colorado River Basin has been in a drought and experiencing historically low runoff and elevations at Lake Powell and Lake Mead, the SWP has experienced historically low allocations. These record low SWP allocations led Metropolitan to declare a Water Shortage Emergency Condition in April, limiting the volume of water that agencies in Metropolitan's State Water Project dependent area can take. Over 6 million residents live in this portion of Metropolitan's service area. As of December 1, 2022, these member agencies used 35 percent less than was expected without emergency conservation. On December 13, 2022, the Metropolitan Board declared a Regional Drought Emergency for all of Southern California and called upon water agencies to immediately reduce their use of all imported supplies. By April 2023, Metropolitan will consider allocating supplies to all its 26 member agencies, requiring them to cut their use of imported water or face steep additional fees on water purchased from Metropolitan. The historically low SWP allocations have also required Metropolitan to draw down on dry year storage, including ICS. Given the 24-Month Study forecasts that show Lake Mead will decline below elevation 1,025 feet by the end-of-calendar-year 2023, Metropolitan's ability to rely on this important source of additional supply is in jeopardy.

Development and Evaluation of Alternatives

The NOI anticipates three primary alternatives will be considered. The No Action Alternative, Reservoir Operations Modification Alternative to be developed by Reclamation as a set of actions and measures adopted pursuant to Secretarial authority under applicable federal law, and the Framework Agreement Alternative. The Framework Agreement Alternative would be a consensus-based set of actions that builds on the existing framework for Colorado River Operations, including commitments included in the 2019 Drought Contingency Plan (DCP). Metropolitan supports the development of the Framework Agreement Alternative. If successful, a consensus-based alternative would build on the approach the Colorado River Basin States took in developing the alternative that became the basis for the 2007 Interim Guidelines Record of Decision and more recently when the Basin States, Tribes and Section 5 Contractors in California worked together to develop the DCP.

This NOI comes only three years after Metropolitan acted with Reclamation and the Colorado River Basin States to reduce the risk of Lake Powell and Lake Mead declining to critically low elevations through the term of the 2007 Interim Guidelines by adopting the DCP. Reclamation, the Basin States, Tribes, and Section 5 Contractors developed the DCP to protect Lake Powell and Lake Mead from declining to critically low elevations through the interim period. Due to the very low runoff during the past three years, Lake Powell has declined to the Target Elevation identified in the Drought Response Operation Agreement in the Upper Basin Drought Contingency Plan, and the 24-Month Study forecasts Lake Mead declining to nearly elevation 1,020 feet, the elevation that the parties to the Lower Basin Drought Contingency Plan made commitments to protect.

The preferred alternative should build on the DCP parties' commitment to collectively work together to protect the reservoirs but because the last few years have demonstrated that the DCP was inadequate to protect Lake Powell and Lake Mead from declining to critical elevations during the interim period, the preferred alternative should include additional and/or new approaches to meet the DCP goals.

Any modifications to reservoir operation in the preferred alternative should:

i. Protect Stored Intentionally Created Surplus

Any modifications to the 2007 Interim Guidelines need to protect the ICS currently stored in Lake Mead. Metropolitan and the other water providers that have created ICS spent years and invested millions of dollars to conserve water that has helped to keep Lake Mead out of shortage before this year. Metropolitan's ICS alone added 19 feet to Lake Mead's elevation. This storage must be preserved for the benefit of agencies funding or implementing ICS creation and to

Contractors to whom funding agencies have directed credit in accordance with Section 3.B.8 of the 2007 Guidelines and must not be delivered to any other user.

ii. Provide for Public Health, Safety, and Welfare Storage and Deliveries

Given the historically low elevations of Lake Powell and Lake Mead and the risk of these reservoirs declining below power pool identified by Reclamation's recent modeling, and the potential risk this presents to public health, safety, and welfare, the preferred alternative should protect sufficient storage in Lake Mead that will at minimum provide 18 months of deliveries to meet public health, safety, and welfare needs. As noted in the NOI:

> [T]he Department has concluded that immediate development of additional operational alternatives and measures for Lake Powell and Lake Mead are necessary to ensure continued "operations that are prudent or necessary for safety of dams, public health and safety, other emergency situations ... 2007 Interim Guidelines at Section 7.D." 87 FR 69044

The preferred alternative should include provisions that assure that operations of the reservoirs provide sufficient water to meet public health, safety and welfare needs.

iii. Reduced Water Deliveries to Protect Infrastructure

If reductions in water deliveries become necessary to protect dam infrastructure at Glen Canyon Dam or Hoover Dam, those reductions should be imposed equitably on all users of Colorado River water such that system storage is not further depleted

iv. Include Provisions for Reservoir Operations in Dry, Average and Wet Conditions

The preferred alternative should include reservoir operations for a range of hydrologic and runoff conditions. The NOI describes the need for "the revised operating guidelines based on the potential that continued low runoff conditions in the Colorado River Basin could lead Glen Canyon Dam to decline to critically low elevations impacting both water delivery and hydropower operations in 2023 and 2024." 87 FR 69043. In addition to providing for reservoir operations in continued low runoff conditions, the preferred alternative should also include provisions for normal and high runoff conditions.

v. Apply Through the Interim Period

Because the risk of low runoff conditions and low reservoir conditions may extend past the 2023 and 2024 operating rules, revisions to reservoir operations made as part of this administrative process should apply through end of the term of the 2007 Interim Guidelines.

vi. Modifications to Operations of Lake Powell and Improvements to Glen Canyon Dam

Because Lake Powell declined below the Target Elevation and given the prospect of low runoff conditions, the continued safe operation of Glen Canyon Dam may require additional conservation in the Upper Basin. Reclamation should include improvements to Glen Canyon Dam that would safely permit operation of Glen Canyon down to elevation 3,490 feet and below in the Reservoir Operations Modification Alternative. The preferred alternative should include Upper Division State actions that help to assure sufficient water gets to Lake Powell to protect infrastructure safety, water deliveries and hydropower generation. Those actions may include a combination of releases from Colorado River Storage Project Act units and conservation in the Upper Basin.

Additional Efforts

In addition to the potential modifications to the 2007 Interim Guidelines described in the NOI, it will be essential for the U.S. and Mexico sections of International Boundary and Water Commission to work together to have Mexico share in reduced deliveries in parity with domestic users in the United States, similarly to how shortages were shared in Minutes 319 and 323. Metropolitan also asks Reclamation to update and apply Part 417 reasonable and beneficial use determinations to ensure that water delivered is not being wasted as soon as possible.

For nearly a century Metropolitan has helped Southern California grow and thrive by delivering high-quality water to the region, a region that is home to approximately 1 in 17 Americans. And now we're helping the region meet the challenges of climate change and extended drought. We need Reclamation's help in meeting this vital goal. Metropolitan looks forward to working with Reclamation throughout this process. If you need further assistance, please contact Ms. Shanti Rosset at 213-217-6030 or srosset@mwdh2o.com.

Thank you,

Adel Hagekhalil
General Manager

Our Region's Trusted Water Leader
San Diego County Water Authority

December 20, 2022

[Via Electronic Mail]

Genevieve Johnson
2007 Interim Guidelines SEIS Project Manager
United States Bureau of Reclamation
CRinterimops@usbr.gov

RE: San Diego County Water Authority Comments - Proposed Development of SEIS for the 2007 Interim Guidelines

Dear Ms. Johnson:

The San Diego County Water Authority (Water Authority) appreciates the opportunity to respond to the Bureau of Reclamation's (Reclamation) published November 17, 2022, Federal Register Notice (notice) seeking comment through a pre-scoping process on the development of a Supplemental Environmental Impact Statement (SEIS) and a Modified Record of Decision (ROD) for the Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (2007 Interim Guidelines). Specifically, the notice seeks input concerning the scope of the analysis, the potential alternatives under consideration, and any additional information that will be relevant toward considering actions for years 2023-24 and likely years 2025-26. The Water Authority is pleased to participate in this process to consider how to address the near-term needs of the Colorado River, as the decisions made through this SEIS process will affect the development of the post-2026 guidelines for the river's long-term operation.

The November notice highlights the worsening hydrologic conditions on the river since the development of the 2007 Interim Guidelines and the need for collaborative solutions to address the supply/demand imbalance and critically low levels in Lakes Mead and Powell. The Water Authority supports the actions that have been taken to date to protect the river as well as critical infrastructure and hydropower generation, including the shortage reductions in the Lower Basin under both the 2007 Interim Guidelines and the 2019 Drought Contingency Plan (DCP), and the implementation of Drought Response Actions, including the emergency Drought Response Operations Agreement releases in the Upper Basin, and withholding 480,000 AF in Lake Powell as an action that allowed for operational neutrality with Lake Mead. In addition, there is currently a call for 2 million to 4 million acre-feet (AF) of additional conservation annually through 2026 Basin-wide to which California agencies have proposed providing up to 400,000 AF annually through the interim period. The notice further highlights that continued low run-off in the Colorado River Basin brought on by the ongoing drought has led to a need for Basin stakeholders to consider additional actions as contemplated in the 2007 Interim Guidelines and DCP.

As an engaged partner in developing the 2007 Interim Guidelines and the post-2026 guidelines, the Water Authority recognizes that this SEIS is intended to consider a range of alternative

actions in support of the entire Basin, and specifically to keep Lakes Mead and Powell from reaching dead pool levels. Toward that end, we request that this SEIS process prioritize the Framework Agreement Alternative, which focuses on continuing to seek a consensus-based set of actions.

The Water Authority, as a member of the Colorado River Board of California (CRB), also agrees with the points identified in CRB's comment letter to Reclamation, most importantly:

- Reclamation should operate Glen Canyon Dam in compliance with the 1922 Colorado River Compact, which establishes delivery obligations in Article III(c), III(d), and III(e).

- Implementation of shortage operations in the Lower Basin by the Secretary of Interior should be guided by the Law of the River and consistent with existing commitments.

- Reservoir evaporation, seepage, and other system losses should not be assessed against Lower Basin water users and instead such losses should continue to be treated as a diminution of supply, which can then be met through application of the Law of the River as supplemented by voluntary agreements.

Further, the Water Authority calls on Reclamation to consider the following additional points in developing the SEIS and a Modified ROD.

- While the Water Authority supports considering a wide range of approaches to addressing the supply/demand imbalance through 2026 (the end of the 2007 Interim Guidelines), any actions must be designed to prevent both Lakes Mead and Powell from falling to dead pool levels and involve actions in both the Upper and Lower Basin (keeping in mind the additional conservation already proposed by California).

- The importance of the 2003 Quantification Settlement Agreement (QSA) in generating conservation needs to be considered in the analysis of the SEIS. The QSA serves as a model for the entire Basin through a collaborative approach to conservation and water management. Through the conserved water transfer agreement, the Water Authority has funded conservation implemented by the Imperial Irrigation District (IID) in a mutually beneficial program that has provided conserved water supplies to the San Diego County region while protecting agriculture and the environment, most importantly the Salton Sea. In total, the Water Authority's QSA supplies include 200,000 AF annually of conserved transfer water and 77,700 AF annually of water conserved through the concrete lining of sections of the All-American and Coachella Canals, which the Water Authority funded along with additional funding received from the state. These conserved QSA supplies also facilitated, in large part, the 2007 Interim Guidelines. Specifically, by quantifying water rights within California through capping annual entitlements, the QSA allowed for the development of future conservation, forbearance, and storage programs. As the QSA continues to serve these purposes, it remains a critical component of river operations.

- Any revisions to the 2007 Interim Guidelines should consider the impacts to the Salton Sea and recognize that environmental mitigation will be necessary separate from the mitigation work moving forward under QSA-related legislation and in addition to the state's restoration efforts under the Salton Sea Management Program (SSMP). The work of the QSA Joint Powers Authority, of which the Water Authority is a member, can serve

as a model for successfully implementing a mitigation program at the Salton Sea that is separate from but complements the state's SSMP.

- Protections for agriculture must be considered as part of the SEIS, in particular in response to California's proposal to conserve up to 400,000 AF annually, including up to 250,000 AF annually from IID (contingent upon completion of conservation agreements) in response to Reclamation's existing call for additional conservation. There needs to be recognition of agriculture's importance in this process, both to the economy of California and to food production for the nation.

- Additional recognition should be given to the importance of ensuring an adequate water supply for all other water users (in addition to agriculture), including cities, Tribes and Mexico.

- As valuable as the Intentionally Created Surplus (ICS) program is to maintaining elevations in Lake Mead, the limited access to Lake Mead storage has stood as a barrier to those who could help support the river. Specifically, the Water Authority does not currently have a storage account despite meeting ICS participation requirements, including having an entitlement to mainstream water under a water delivery contract with the United States, a reservation of water by the Secretary of Interior, and conserved water supplies that qualify under the ICS program parameters. Granting the Water Authority a Lake Mead storage account would have Basin-wide benefits, providing additional water within the Colorado River system to build elevation in Lake Mead to protect water supply, hydropower production and infrastructure. Considering such benefits, the Water Authority requests that you incorporate expanded access to the ICS program and Lake Mead storage accounts as part of the SEIS analysis.

The Water Authority looks forward to continued engagement in the SEIS process and the steps to follow just as we engaged in the development of the 2007 Interim Guidelines, and before that in the adoption of the QSA. This process, which will shape future river operations, must be as inclusive as possible. Please feel free to reach out to the Water Authority with questions regarding our comments.

Sincerely,

Dan Denham
Deputy General Manager

QUECHAN INDIAN TRIBE
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December 19, 2022

Ms. Camille Calimlim Touton
Commissioner of Reclamation
U.S. Bureau of Reclamation
1849 C Street NW # 7654
Washington, DC 20240
CRB-info@usbr.gov
CRinterimops@usbr.gov

Re.: Quechan Indian Tribe Comments to Reclamation's Notice of Intent to prepare Supplemental EIS Regarding Implementation of the 2007 Interim Guidelines

By e-mail

Dear Commissioner Touton:

The Quechan Indian Tribe (Tribe) submits these comments in response to the Notice of Intent (NOI) to Prepare a Supplemental Environmental Impact Statement (SEIS) that the U.S. Bureau of Reclamation (Reclamation) published in the Federal Register on November 17, 2022.

As we noted in the comments the Tribe submitted in response to Reclamation's Pre-Scoping Federal Register Notice of June 24, 2022, the Colorado River has been the lifeblood of the Quechan people since time immemorial, and we have a deep and abiding responsibility to be good stewards of the River – for the Tribe and its members, for the species and ecosystems that it sustains, and for the benefit of our fellow tribes and non-Indian neighbors throughout the Basin. And we reiterate the paramount importance keeping the Colorado River flowing as a living river.

With that in mind, the Tribe appreciates the effort Reclamation is making to address the inordinately challenging hydrologic conditions facing the Colorado River Basin. Reclamation's desire for additional management flexibility under the 2007 Interim Guidelines, as indicated in the NOI seems to us to be a generally appropriate additional step. We certainly understand the importance of protecting power generation at Glen Canyon Dam and recognize that greater flexibility in the allocation of water as between Lake Powell and Lake Mead is a necessary part of that effort. But we would like to better understand how Reclamation intends also to protect power generation at Hoover Dam and wet water deliveries to Lower Basin water users, which are

both also threatened by current hydrologic conditions and which will be put at even greater risk if Reclamation significantly decreases water released from Lake Powell to Lake Mead in 2023. This is particularly so in light of Reclamation's decision in 2022 to withhold in Lake Powell 480,000 acre-feet of water that had been scheduled for delivery to Lake Mead. The relationship between the two reservoirs and the impacts of Reclamation's management decisions in favor of one over the other deserve careful scrutiny and expansive analysis in any draft SEIS so that the Tribe, along with other Basin stakeholders, can be in position to submit fully informed comments prior to Reclamation's finalization of the SEIS.

We also reiterate the caution we included in our letter to Assistant Secretary Tanya Trujillo of July 14, 2022. That is, we believe that any specific water management decisions Reclamtion makes, with this new authority or otherwise, must be developed and undertaken with full awareness of the United States' trust responsibility to Indian tribes and the extent to which Colorado River water users have benefitted from and relied on historically un- or under-developed tribal water rights. Such actions must be crafted in a way that protects Basin tribes from further depredation. This is of particularly acute concern to us in light of the Notice's identification of Reclamation's intent to expand its toolkit "to decrease the quantity of water that shall be apportioned for consumptive use in the Lower Division States (Arizona, California, and Nevada)."

Thank you for your consideration of these comments.

Sincerely,

Jordan D. Joaquin
President, Quechan Indian Tribe

Cc: Tanya Trujillo, Assistant Secretary for Water and Science
David Palumbo, Deputy Commission, Bureau of Reclamation
Carly Jerla, Senior Water Resources Program Manager

Reclamation 2007 Interim Guidelines SEIS Project Manager
Upper Colorado basin Region,
125 South State Street, Suite 8100
Salt Lake City, Utah 84138

Sent via email to: CRinterimops@usbr.gov

Re: Scoping Comments on SEIS

December 29, 2022

The Colorado River Indian Tribes are aware of and have studied the current crisis on the Colorado River. The Mohave and Chemehuevi people have always lived along the banks of the River in what is now the Lower Basin. Our ancestors lived through previous droughts and floods.

We thank Reclamation for conducting this Supplemental Environmental Impact Study that is necessary to understand the impacts of less water in the River. We expect that Reclamation will prepare its alternatives with the full knowledge of the unique aspects of each tribe's water rights including the unique nature of the decreed water rights of the Colorado River Indian Tribes. We do not have a Reclamation contract, our water is not delivered through a Reclamation facility, and we are not part of a state water rights system. Reclamation, as part of the United States government, has a trust obligation to protect our first-priority decreed water rights for our present and future use.

We incorporate in these comments the letter from Attorney General Rebecca Loudbear to Secretary Haaland, et al dated October 26, 2022, regarding the potential assessment of system losses against the CRIT.

Considerations for the SEIS

Mechanisms need to be developed and in place as soon as possible for all water users in the Basin to voluntarily contribute some of their water to the system.

A flowing River is very important and religiously and culturally significant to our community and to many tribes along the River and its tributaries. Because of this fact CRIT has been voluntarily leaving water in Lake Mead as part of the Pilot System Conservation Program and the Arizona DCP Agreements. The CRIT submitted a proposal to continue leaving its water in the system in 2023 through 2025. **All** water users must be included in these types of programs.

The protection of Glen Canyon Dam is important to everyone in the basin. However, we, as Lower Basin water users should not be the only entities sacrificing for this objective. Our water cannot go into Lake Powell. The NOI and the information in the public webinars indicate that

the primary mechanism for protecting Glenn Canyon Dam is to deliver less water to Lake Mead. This puts the burden of protecting Glenn Canyon Dam on us as a lower basin water user. Other mechanisms for broader participation should be included in the alternatives.

The Colorado River is a living River with fish, animals, plants, and people who depend on it to continue. All potential action alternatives should include a component for water to continue to flow from Lake Powell through the Grand Canyon, through Black Canyon, through Lake Havasu, through the wildlife refuges, the tribal Reservations and on to Mexico. We do not know, and may not be able to know, the full extent of the damage that will be done if operations of the dams prevent the flow of the Colorado River through any part of its course. Reclamation must protect against this catastrophe.

We recommend that Reclamation study an alternative that will include maintaining system conservation water that was created through a compensation program as water in the system. This water may remain in Lake Mead to maintain the minimum pool and may be released to maintain the base flows through the River needed for environmental and habitat protection. System conservation is currently accounted for and delivered as a source of inflow. It is delivered to water users as early as the water year following creation. The Reclamation system conservation program can be modeled after the ICS program by creating a separate account and establishing parameters for delivery or release for the purpose of preserving the system. The parameters would include specified River conditions triggering a release for system preservation and for conditions that permit the water to be delivered to water users.

Climate change has resulted in less water within the Colorado River. But, it is the use of that water that is causing the current crisis. We must all contribute to save the life of the River and our contributions of water should be used to maintain the River's life.

Thank you for consideration of our comments.

Please direct any correspondence regarding these comments to: Rebecca Loudbear, Attorney General, Colorado River Indian Tribes: rloudbear@critdoj.com

CC:
Tom Buschatzke; tbuschatzke@azwater.gov
Chris Harris; csharris@crb.ca.gov
John Entsminger; John.Entsminger@lvvwd.com

December 20, 2022

Genevieve Johnson
Reclamation 2007 Interim Guidelines SEIS Project Manager
Upper Colorado Basin Region,
125 South State Street, Suite 8100
Salt Lake City, Utah 84138

VIA EMAIL - CRinterimops@usbr.gov.

Dear Ms. Johnson,

On behalf of our respective organizations, thank you for the opportunity to provide input and comment regarding the Bureau of Reclamation's (Reclamation) "*Notice of Intent To Prepare a Supplemental Environmental Impact Statement for the December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations For Lake Powell and Lake Mead*" (SEIS Notice) as published in Federal Register Notice – 87 FR 69042 on November 17, 2022.

The Colorado River (CR) Basin is at a crossroads. As the SEIS Notice points out, both infrastructure and public health and safety within the CR System are at risk. Included in this risk is the environmental health of the CR and its habitats. Unprecedented operational decisions need to be made as soon as possible to help address the Basin's stark conditions and prevent potential system collapses over the next couple of years that could otherwise have reverberating consequences for the CR community and the environment for decades to come. The Supplemental Environmental Impact Statement (SEIS) process is intended to help inform such decisions by evaluating modifications to the Record of Decision for the 2007 Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (2007 Interim Guidelines) in light of current CR hydrology and reservoir conditions and plausible low runoff conditions over the next four years.

We provide the following comments regarding important contextual imperatives for helping assure the CR community continues to effectively function in the years to come, as well as technical and process considerations to keep in mind and fold into the referenced SEIS process. Also integrated as part of our comments are appendices concerning guiding principles (Appendix A) and parallel process considerations (Appendix B) to further inform the SEIS process and an outline for proposed actions and operating strategy considerations (Appendix C) to more effectively inform useful near-term operations of CR infrastructure.

I. CONTEXTUAL IMPERATIVES

The undersigned organizations appreciate Reclamation's efforts to concurrently pursue both near and longer-term efforts to address the present day challenges in the CR Basin. By applying Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) funding and pursuing both short- and long-term changes to CR infrastructure operations, Reclamation is moving in a positive direction toward helping the CR community prepare for and adapt to hotter and drier conditions that are currently experienced and expected to continue throughout the Basin. The challenges, however, implicate complicated technical, legal and policy issues that invoke ties to legal rights, cultural heritage, passionate opinions and competing interests. Recognizing and addressing these obstacles will be integral to the CR community's success in stabilizing the Basin, which is urgently needed. This means Reclamation and its sister agencies, the Basin States, Tribes, and stakeholders will all have to acknowledge and find ways to navigate the interests when considering next steps to take to prevent system collapses and allow the Basin to continue to thrive. Under this framework, there are contextual imperatives that remain critical to furthering this commitment. They include, but may not be limited to, an understanding that:

(1) **Environmental resources are part of the CR infrastructure and essential to the CR Basin's system integrity, health and safety.** The CR Basin's natural systems and environment are essential parts of system integrity and public health and safety considerations related to the operation of the CR System's infrastructure. The infrastructure's continued safety and functionality cannot be ensured without accounting for the continued viability of critical natural systems and environments that serve as the very building blocks upon which CR communities, economies and ecosystems survive. There is no buffer for system integrity or public health and safety if the environment that sustains them collapses. While impacts to the Grand Canyon, watersheds and river reaches in both the Upper and Lower Basins and wildlife and habitats throughout the CR community have been and will continue to be inevitably affected by the 20+ year drought that has been accelerated by climate change, those impacts can be mitigated and cannot be allowed to be exacerbated by operational decisions concerning CR infrastructure going forward. In other words, it will remain incumbent on Reclamation, consistent with its stated mission[1] and in conjunction with the CR community, to structure updated operations through the SEIS to ensure the Basin's essential natural systems and environments remain functional and are not driven to irrevocably fail or collapse as a result of responses to the ongoing CR crisis.

(2) **Litigation only delays changes necessary to resolve the Basin's real water security and environmental issues and we are quickly running out of time.** Multi-decadal drought accelerated by climate change has thrown a wrench into the current framework for managing the Basin, and the CR community is scrambling. If there is a perceived imbalance of pain or opportunity by one state, water use sector or group of stakeholders at the expense of others, the incentive to posture and litigate will continue to assure the management system remains

[1] The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. See About tab on Bureau of Reclamation Webpage (https://www.usbr.gov/gp/about_us/vision.html#:~:text=Reclamation's%20Mission%20Statement%3A,interest%20of%20the%20American%20public).

overwhelmed. However, litigation initiated in response to efforts to stabilize the system will only hasten the likelihood that everyone loses in the near-term. Further, if the system's natural resources and environment are allowed to become the first sacrificial lambs in the process, it will devastate the foundational functionality of the system and make it even more difficult to recover. We have to find ways to accept the realities of climate change and all that goes with it to find workable ways to avoid uncertain futures for communities, economies, and ecosystems throughout. ***Reclamation can lead this effort through the SEIS*** process by exhibiting a demonstrated understanding of the competing concerns and issues, being transparent in analyses and decision-making with clear pathways for participation and input, and providing opportunities for consensus and collaboration to address the challenges in a comprehensive and balanced manner. Key principles to consider to help further this undertaking are attached as Appendix A.

II. SPECIFIC CONSIDERATIONS

Specific technical and process considerations for the SEIS process are outlined below. Appendix C further outlines proposed alternative strategies to consider as part of the SEIS process. Rooted within each comment and the proposed alternative are commitments to collaboration and concern for the continued functionality of the CR system and the community and environmental values it supports.

A. Technical Considerations

(1) *Top priority must be system stability.* The SEIS Notice reports that supplemental actions are needed to "ensure that Glen Canyon Dam continues to operate under its intended design" and to "protect Hoover Dam operations, system integrity, and public health and safety" in the near-term. These stated goals can only be achieved if the supplemental actions prioritize conjunctively operating the reservoir facilities to sufficiently stabilize the system over traditional objectives like maximizing water deliveries and generating hydropower. Specifically, supplemental actions must work to ensure that flows (even if they have to be reduced) can continue to run through the system from year to year without the CR community having to scramble to react to conditions as they arise. Otherwise, there will always be a question as to whether public health and safety, system integrity and the operational intent of the reservoirs and dams can be preserved.

(2) *Natural systems and the environment must be integrated into the SEIS' overall framework.* The CR System's infrastructure has been constructed and operated to help provide reliable water deliveries and generate hydropower in a manner that generally integrates environmental and recreational resource considerations throughout the process. Going forward, actions to preserve system integrity and the public health and safety of the CR infrastructure must not overlook opportunities and measures to mitigate or otherwise address destabilizing effects of river operations on key environmental systems throughout the CR Basin. This includes taking affirmative measures to mitigate the effects to and amplify the resources within the Grand Canyon as well as within key reaches of both the Upper and Lower Basins. Proposed strategies associated with such efforts are outlined in Appendix C.

(3) *Consider hydropower generation and funding realities.* Hydropower generation has traditionally been a priority resource consideration when balancing competing interests to operate CR infrastructure. Present conditions, however, force us to acknowledge the reality that hydropower generation capacity is declining along with system storage at the Basin's largest reservoirs. This inevitably impacts current and future customers of CR hydropower as well as funding for critical CR programs like the Upper Colorado River Endangered Fish Recovery Program, San Juan River Basin Recovery Implementation Program, and Salinity Control Program, among others. Modified operations under the SEIS process to protect the integrity of the CR infrastructure, including the CR itself, should incorporate an evaluation of alternative sources of replacement power (for customers) and funding (for programming) that will help mitigate and not exacerbate the crises over the next few years.

Furthermore, in light of the inevitable decline in hydropower generation, the monthly and daily hydrographs for water released from Glen Canyon Dam and other CRSP Initial Units should be prioritized to minimize impacts and maximize benefits to the downstream resources that will already be affected by drought and climate change conditions in the Upper Basin.

(4) *Update hydrologic modeling.* For purposes of the SEIS process, it is assumed that modeling results from the Colorado River Mid-Term Modeling System (CRMMS) will continue to drive decision making in the Basin. CRMMS has historically produced forecasts reliant on historic data that biases towards wetter conditions than the Basin is expected to experience going forward. This approach could cripple both the physical system and any attempts to effectively evaluate SEIS alternatives if methodologies remain stagnant. However, during the 2007 Interim Guidelines SEIS Public Informational Webinar on December 2, 2022, Reclamation staff presented various preliminary alternative analyses through CRMMS modeling with updated hydrology inputs. Reclamation publicly explained that such updates are being explored as current CRMMS projections do not reflect a full range of hydrology, as plausible future warmer and drier conditions are not represented in official CRMMS forecasts. With the goal of supporting greater accuracy in analyses, the SEIS process should aim to a) support Reclamation's efforts to incorporate updated CRMMS data and methodologies, including low flow scenarios such as multiple years of 2.5 million acre feet of unregulated inflow (2002); b) address remaining concerns in CRMMS methodologies based on initial SEIS Public Informational Webinar results; and c) promote transparency by providing public documentation and model files of CRMMS updated methodology. Specific recommendations for each of these proposals can be found in Appendix C.

(5) *Incorporate opportunities for greater flexibility in decision points and management tools.* Modified operations under the SEIS must incentivize and incorporate flexibilities to overcome the otherwise unacceptable risk of collapses within the system. While such flexibilities cannot be unfettered, they can be crafted to fit within legal, policy and management frameworks agreed to by the relevant CR community. Specific modifications to consider for greater operational flexibility in light of near-term risks include: (a) modifying the timing and constraints of decision points for coordinated operation of Lakes Powell and Mead; (b) incorporating greater flexibility in the conjunctive management of the CR infrastructure; (c) updates to the Drought Response Operations Agreement and related procedural documents; (d) modifications to the ICS program;

and (e) changes to the mid-year review process as currently provided in the 2007 Interim Guidelines. The basis for and description of each of these possible guideline modifications are outlined and described in Appendix C.

(6) *Identify steps to account for all water uses within the Basin.* Reliable decisions are only as good as the data that informs them. While Reclamation has a dedicated group of specialists available to develop the annual basin water accounting, gaps in the data regarding water uses that are currently not charged to any particular member of the CR community exacerbate uncertainty in potentially viable operations going forward. For the CR community to better understand and support changes considered as part of the SEIS process, Reclamation would benefit from identifying whether and how it will: (1) develop and make available a reliable water balance accounting, including evaporation and transit losses, throughout the CR system; and (2) create a process for determining what constitutes a valid beneficial use consistent with its authorities under C.F.R. 417.

(7) *Synchronize parallel programming with SEIS analysis.* The SEIS process must work to identify and assess the impacts of alternative actions on natural resources regardless of where they touch down in the Basin. Otherwise the risk of unintended consequences exacerbating destabilizing conditions within the Basin will remain high. Armed with such impact information, Reclamation can then position itself to best identify how to mitigate such effects through the supplemental actions considered within the SEIS or through pinpointed direction of BIL, IRA or other program funding. Some key parallel opportunities to consider include concerted actions outlined in Appendix B.

B. Process Considerations

(1) *Honor Basin Tribes' sovereign status.* As the SEIS Notice recognizes, Basin Tribes are important members of the CR community and sovereign in their own rights. They must be afforded the opportunity to participate in developing comprehensive solutions to the Basin's water challenges. As such, federal agencies should work with Basin Tribes now to identify a mutually agreeable process for coordinating and identifying respective Tribal needs and perspectives into future operational strategies and the decision-making process.

(2) *Build on relationships between the US and Mexico on CR matters.* River policies and decision-making are not made in isolation; they inform and impact the rights and interests of water users and the environment within and beyond U.S. borders. The integrity and health and safety of the CR infrastructure will not be achieved unless actions to manage the system through emergent threats recognize and respect (do not undermine/set back) Mexico's interests and needs in the CR. We strongly encourage an approach that ensures the binational process both moves forward with (to the extent feasible) and meaningfully informs the development of management alternatives in the domestic SEIS process – both as a means to better coordinate domestic and international management of the River, and to ensure that the SEIS process includes sufficiently broad analysis to anticipate binational management initiatives and avoid limiting the scope of what may be possible in a future Minute.

(3) *Ensure engagement and participation from a diverse group of stakeholders is meaningful.* The integrity of Reclamation's decision to modify the operation of CR infrastructure will depend on engaging stakeholders outside of established processes for consensus-building within participating state and tribal governments. If the management of the CR is going to change in ways that increase its resilience to disruption, it requires consideration of institutional approaches for identifying and addressing system risks that do not depend only on existing, established governance mechanisms, information channels, and consensus-building processes that are already struggling to keep up with the rate and scale of change in this system. We are encouraged by the express references to stakeholder coordination, consultation, and outreach in the SEIS Notice. They are the important steps to ensuring the rights and interests of the CR community are sufficiently considered and included in the new CR management strategies. As such, the process should, among other things:

   (a) *Provide transparency for stakeholders, decision-makers and the interested public. Reclamation should provide useful mechanisms for keeping stakeholders, decision-makers, and the interested public informed of progress and developments from the SEIS effort*. This includes things like: (1) a dedicated website that contains relevant information, identifies key contacts, and provides a clear calendar for impactful communication and feedback opportunities; (2) a mechanism for broadcasting important updates and notices of meetings, conferences, and webinars (e.g., through social media among other sources); (3) Consultations, public meetings and webinars to provide substantive updates.

   (b) *Involve a diverse group of stakeholders to fully encompass the complete set of relevant CR interests and perspectives in the SEIS analysis*. This includes providing forums (in relevant and appropriate languages) for various groups to interact and discuss options and considerations going forward. This may be particularly important in terms of cultivating the identification of vulnerabilities and solutions relevant to a robust decision-making process, which should take advantage wherever possible of local stakeholder knowledge to better inform the understanding of risks and issues that can result from conditions that may develop in the face of increasing uncertainty. It will require scheduling outreach at relevant, timely intervals to provide a reasonable opportunity for gaining an understanding of the SEIS analysis. It will also require confirmation that Reclamation is willing to make itself available to interested stakeholders (and not just one group or water user sector) to inform the various elements of the SEIS investigation.

   (c) *Provide for iterative discussions and feedback from stakeholders with a proven record of problem-solving and collaboration*. Stakeholders (like the undersigned conservation groups) who have a demonstrated commitment and willingness to address the Basin's water challenges should be afforded opportunities to work directly with state, Tribal and federal agencies on the SEIS efforts. Specifically, committed stakeholders who have shown a willingness to promote solutions should be allowed to better understand the details of the proposed SEIS investigation as it develops, have iterative dialogue, and provide substantive suggestions for consideration in development and assessment of the SEIS investigation. As we did in 2007, the undersigned NGOs fully intend to invest significant resources and analytical effort in the development of alternatives and analysis during the preparation of both the Draft and Final SEIS.

We sincerely value the effort to protect the CR System's integrity, health and safety and environment, and appreciate the opportunity to inform the operational decision making process over the near-term. We look forward to working with Reclamation and the rest of the CR Community to inform the important short-term management decisions to help stabilize the Basin and preserve its ability to function for the benefit of individuals, communities, economies, and ecosystems throughout the Basin.

Signed:

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APPENDIX A

GUIDING PRINCIPLES FOR DECISION MAKING PROCESSES IN THE COLORADO RIVER BASIN

The SEIS process is intended to help identify how best to manage the CR infrastructure in the next two+ years so that it can continue to operate for the purposes intended, protect system integrity and preserve public health and safety in the face of an otherwise possible whole system collapse. Given the risks involved and the possible need for urgent action, the process could be subsumed by disruptive and intervening events if not clearly defined and adequately constructed. To avoid this outcome, the SEIS process should be guided by overarching principles that help inform the overall decisions. Key principles to consider include recognition that federal strategies, actions, and operations should generally work to:

(1) **Advance water security for people, economies, and the environment.** Water security remains essential to water users and ecosystems throughout the Basin. Modeling of past hydrology is insufficient to help plan and inform future conditions. Advancing water security going forward requires operational strategies that consider more than the minimum, most and maximum probable hydrologies based on historic hydrology. They must also be informed by the full range of possible climate, hydrologic, soil and other conditions in the face of uncertain water futures that will allow the CR community to effectively plan for and adjust to changing conditions.

(2) **Have near-term actions complement long-term management/resilience building endeavors.** Experience over the past 20 years reveals that the scale and pace of climate-related changes in the CR Basin are affecting availability and reliability of water supplies for the continued viability of agricultural operations, rural and urban water demands, energy use and watershed health over the long-term. The SEIS process is not an isolated effort. The long-term operation of the CR System post-2026 is an important effort that Reclamation is pursuing concurrently to the SEIS. Moreover, funding for drought mitigation and resilience building through the IIJA and IRA are in full force. The near-term actions considered under the SEIS process must work in tandem with, and not impede, these ongoing efforts to manage the Basin over the long-term.

(3) **Share the benefits and burdens of system operations**. We recognize that there is a need to sacrifice as a result of the immediate conditions the Basin is facing. While prepared to sacrifice, however, we are not willing to accept complete dispossession. For there to be a hope of successfully operating the system in the near-term, water challenges and opportunities must be shared across the CR Basin. If there is an imbalance of pain or opportunity for one state, water use sector or group of stakeholders at the expense of others, the incentive to posture and litigate will subsume and overcome the management system and devastate the Basin's natural resources in the process. Working within the intent and purpose of the Compact and the broad range of other existing agreements, the SEIS analysis must identify strategies that mitigate effects to critical environmental systems, remove opportunities to "game the system" at the expense of others and promote a sharing of the burdens and benefits within the CR community.

(4) **Enable sufficient flexibility to adjust to and accommodate changing conditions.** SEIS strategies and operations should include flexible policies that can respond to changing conditions and prevent any part of the system from irretrievably breaking. Innovative policies that include a scale of decision points and operations (as opposed to hard deadlines and triggers) offer greater opportunities for adjusting to and accommodating circumstances as they arise. While such

policies cannot be unfettered, they can be developed with sideboards to play an important role in maintaining system integrity and public health and safety in the Basin.

(5) **Allow and consider perspectives from the entire CR community through transparent and inclusive SEIS processes.** Federal leadership is critical to protecting system integrity and promoting public health and safety of the CR infrastructure. But it cannot operate in a vacuum to decide the needs and interests of the entire Basin community. The viability of near term actions and operations will also depend on the commitment of the CR community's sovereigns (States, Tribes and Mexico) and stakeholders to actively participate and on Reclamation's willingness to consider and integrate the perspectives from the full range of CR community members when developing alternative actions to evaluate and deciding the preferred alternative to implement in the near-term.

(6) **Be mindful of important environmental programs within the Basin.** To safeguard environmental conditions that provide foundational functionality for the Basin, the Bureau's SEIS process should be mindful of and not overlook:

   (a) *Effective recovery programming and species protection.* Programs like the Upper Colorado River Endangered Fish Recovery Program, San Juan River Basin Recovery Implementation Program, Long-Term Experimental and Management Program, and Multi-Species Conservation Program will continue to be important to the overall functionality of the river system during SEIS operations. Existing species and recovery programs, and their related funding sources, may need to be concurrently fortified or updated to effectively manage for changed conditions and provide for continued protection, mitigation and recovery of critical resources, species and habitats at the appropriate scale.

   (b) *Interconnected systems***.** The CR System cannot effectively operate to stabilize conditions at the expense of other watersheds going forward. Additionally, understanding the demands and constraints of adjacent watersheds/systems could directly or indirectly impact supplies (i.e., transmountain or transbasin diversions) and inform the stability of the CR Basin going forward. As the Basin works to implement river policies and management decisions that will sustain the system in the short and long-term, it will be important to consider and avoid harm to systems that are interconnected and/or dependent on, but separate from, the consideration of the annual water supplies within the CR Basin. Such interconnected systems, include but may not be limited to: (a) Significant groundwater overdraft; (b) San Juan Chama/Rio Grande; (c) other transbasin diversions; and (d) Salton Sea.

APPENDIX B

CONSIDERATIONS FOR SYNCHRONIZING THE SEIS WITH PARALLEL PROGRAMING IN THE COLORADO RIVER BASIN

SEIS management strategies and operations will not be the sole answer to all the issues afflicting the Colorado River Basin. Parallel activities, in addition to those contemplated by Reclamation's SEIS analyses, will be critical to the continued integrity, health and safety of the Basin. While focused on modifications to operations over the next two years, the SEIS process should, to the extent possible, anticipate tools that would be valuable to these parallel processes to ensure the longevity of workable operations going forward. Some key parallel activities to consider include concerted actions regarding:

(1) ***Incentives to promote adaptation and resilience building within the Basin.*** New operational strategies will inevitably influence the extent to which the Basin can continue to function, let alone thrive, over time. Therefore, the strategies, elements and operations considered should, wherever possible, complement or contribute to (and not conflict with other efforts to) other federal, state and Tribal efforts to build much needed drought and climate change resilience in the coming years.

(2) ***Post-2026 Management Strategies and Operations.*** Concurrent with the SEIS process, Reclamation is evaluating the long-term operation of the CR System post-2026. While separate endeavors, they cannot be done in isolation. How the SEIS process unfolds will inevitably influence the Post-2026 evaluation and vice versa. Wherever possible, therefore, these efforts must work in concert and avoid conflicting with each other.

(3) ***Mexico/Delta****.* Modifying operational strategies under the SEIS and continued operation of the Minutes to the 1944 Water Treaty are interrelated. One will not be able to fully work without the other. Stabilizing the system that will, in turn, help maintain water and life within the Basin will depend in part on how binational relationships and opportunities will be considered and cultivated throughout the SEIS processes.

(4) ***Salton Sea****.* Reclamation recently announced a "Landmark Agreement to Accelerate Salton Sea Restoration" using IRA funds. SEIS strategies should work in tandem with these efforts, recognizing that impacts to public health and wildlife associated with reduced flows to the Salton Sea will be important for Imperial Valley's active involvement in developing workable CR strategies to adapt to the dwindling Basin water supplies.

(5) ***Groundwater.*** As the availability of CR water decreases, the focus on groundwater supplies is likely to increase. Mining groundwater, however, is not a sustainable solution for the Basin. The SEIS analysis of alternatives on groundwater supplies will remain a critical part of the overall analysis for developing workable strategies and operations for the Basin.

(6) ***Access to clean water.*** Access to reliable, clean, and drinkable water is an essential human need. However, it is not ubiquitous in the CR Basin, especially for Page, Arizona and tribal nations that depend on water from Lake Powell. SEIS strategies must identify ways to maintain reliable access to clean drinking water and adequate sanitation for CR community members, including Tribes, who are at risk in the face of near-term conditions.

(7) ***National historic preservation considerations.*** The CR's cultural resources are an integral part of the Basin's history and identity. Consideration of how to preserve these resources should not be ignored as the CR community develops SEIS strategies for the Basin.

APPENDIX C

OUTLINE OF PROPOSED ACTIONS AND
OPERATING STRATEGY CONSIDERATIONS AS PART OF SEIS PROCESS

The experience of the past two decades has been about chasing the declining hydrology with incremental actions that could not accurately anticipate the Basin's extreme conditions. This has resulted in an increasingly dire situation for the Basin that has placed everyone and everything in this system at risk. Recognizing this risk, the Bureau of Reclamation (Reclamation) has announced its development of a Supplemental Environmental Impact Statement (SEIS) to consider near-term modifications to the 2007 Record of Decision regarding the *Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations For Lake Powell and Lake Mead*.

This document outlines possible actions and strategies to consider when working to modify specific components of the 2007 Interim Guidelines in a manner that recognizes and helps protect the integrity, health and safety of the Colorado River system over the short-term. Embedded as a fundamental premise is the need to protect the CR System's infrastructure, acknowledging that the infrastructure includes the river system itself. The proposed strategies track with the comments set forth in the conservation group's joint comment letter regarding the SEIS scope and alternatives. The strategy goals are intended to help avoid, minimize, or mitigate more drastic approaches that would inevitably result in significant disruptions and impacts to the Basin's communities, economies, and environment.[2]

Proposed actions and operating strategies to consider as part of the SEIS process are outlined as follows:

I. ***Prioritize sufficient stabilization of the CR system under critically low storage conditions.*** Supplemental actions should prioritize conjunctively operating the reservoir facilities to sufficiently stabilize the system over traditional objectives like maximizing water deliveries and generating hydropower. This includes efforts to ensure flows (even if they have to be reduced) can continue to run through the system from year to year without the CR community having to scramble to react to conditions as they arise. Otherwise, there will always be a question as to whether public health and safety, system integrity and the operational intent of the reservoirs and dams can be preserved.

II. ***Pursue greater flexibility in conjunctive management of CR infrastructure.*** The CR infrastructure will remain at risk unless operational strategies can be modified in the near term to store and access water where needed to protect system integrity, health and safety. This reality suggests that greater flexibility in conjunctively managing the CR reservoir system is an essential priority for the SEIS process. Specifically, the SEIS should include evaluation of an operational/management strategy that is based on more than reservoir elevations assuming probabilistically predictable reservoir inflows (e.g. CRMMS forecasts). It should consider

[2] NOTE: The strategy considerations outlined in this Appendix C are proposed recognizing the need to work within legal frameworks applicable to both the Upper and Lower Basins. Whether it be through existing authorities and agreements or future consensus arrangements, there are ways to accomplish the proposed strategies through innovative thinking and practical applications that we are ready and willing to discuss at the convenience of interested parties.

operational/management strategies based on storage conditions and/or recent historic hydrologic trends, e.g. previous water year inflow or average of the previous 3-5 year inflow to determine appropriate release volumes from Lakes Powell and Mead (and possible other facilities) that are aimed at protecting CR infrastructure including river essentials (i.e., protecting against dead pool at Lakes Powell and Mead while ensuring continued running of CR water through the system). Reclamation has already demonstrated elements of such an approach in conjunction with the Basin States during the emergency management actions taken in May 2022.

III. ***Integrate natural systems and the environment into the SEIS' overall framework.*** Actions to preserve system integrity and the public health and safety of the CR infrastructure must not overlook opportunities and measures to mitigate or otherwise address destabilizing effects of river operations on key environmental systems throughout the CR Basin. This includes taking affirmative measures to mitigate the effects and amplify:

A. *Grand Canyon resources.* The Grand Canyon is one of the world's most iconic landscapes with diverse ecosystems, biological communities, and scenic vistas. The SEIS process will inevitably implicate and impact this world renown landscape.[3] While impacts may be inevitable, it will be important for Reclamation to coordinate considerations and responsibilities with other federal agencies, advisory groups and stakeholders to assure such impacts are sufficiently identified and mitigated as part of the SEIS process. Recommendations include:

1. Prioritizing operations to assure continued flows from Glen Canyon Dam through the Canyon from year to year.

2. Identifying how changes to monthly and daily hydrographs will be accomplished in concert with any annual release modifications at Glen Canyon Dam to accommodate natural systems and resources that remain important to the overall stabilization of the system (see Technical Consideration #1,in letter above).

3. Considering the mechanisms for weighing additional resource and recreation trade off based on information and support of the Grand Canyon Research and Monitoring Center (GCMRC) and Glen Canyon Adaptive Management Workgroup (AMWG). Specifically, the continued need for High Flow Experiments, blue-ribbon trout fisheries, non-native fish mitigation flows, and protection against wide temperature swings, among other considerations remain essential to preventing the collapse of critical resources, species and habitat in the Grand Canyon.

[3] The Purpose and Need Section of the SEIS Notice provides: "In order to ensure that Glen Canyon Dam continues to operate under its intended design, Reclamation may need to modify current operations and reduce Glen Canyon Dam downstream releases, thereby impacting downstream riparian areas and reservoir elevations at Lake Mead. Accordingly, in order to protect Hoover Dam operations, system integrity, and public health and safety, Reclamation also may need to modify current operations and reduce Hoover Dam downstream releases." FR 87 FR 69042, 69043 (November 17, 2022).

B. *Key natural systems and the environment in the Upper and Lower Basin.* This can be accomplished in the SEIS by:
    1. Identifying the key reaches in the Upper and Lower Basins

    2. Exploring ways to minimize and/or avoid the loss of natural systems and environmental resources in these reaches.

    3. This may involve impact investigations and mitigation considerations for resources downstream of each Colorado River Storage Project Initial Unit in the Upper Basin, in the Grand Canyon, and as part of the Lower Basin Multi-Species and Conservation Program.

    4. This effort would also include identifying opportunities for, among other things, advancing watershed health, avoiding the dry up of the downstream river reaches and incorporating maintenance of flowing rivers and important aquatic habitats for critical species as part of the modified operational considerations.

    5. Considering different outcomes as appropriate for reaches along the CR and its tributaries based on:
        i. direct flow metrics (e.g., average flow, peak flow, minimum flow, and water deliveries);

        ii. derived flow metrics (e.g., salinity, stream temperature, sediment transport), and

        iii. resources-specific metrics (e.g., relevant threatened and endangered species and critical habitat, native and invasive fish populations, aquatic parasites, vegetation, etc.).

IV. **<u>Adopt key changes to hydrologic modeling:</u>** For each of the operating alternatives, including a Stabilization Framework Approach informed by considerations in this Appendix, the SEIS process would consider:

A. *Incorporating newly developed CRMMS inflow hydrologies and methodologies to more accurately assess SEIS alternatives*. We appreciate Reclamation's work to explore "new [forecast] methods [to] capture drought and hydrologic variability more effectively, seeking to improve projections of reservoir operations in the future," as evidenced by the December 2nd presentation and a body of published work from Reclamation staff and partners.[4] In partnership with the National Oceanic and Atmospheric Administration and National Center for Atmospheric Research, we commend Reclamation's recent establishment of the Colorado River Basin Operational Prediction Testbed, which aims to "provide a quantitative and consistent framework for assessing the skill of [CRMMS]

[4] Baker, S. A., A. W. Wood, B. Rajagopalan, J. Prairie, C. Jerla, E. Zagona, R. A. Butler, and R. Smith. (2022). "The Colorado River Basin operational prediction testbed: A framework for evaluating streamflow forecasts and reservoir operations." J. Am. Water Resour. Assoc. https://doi.org/10.1111/1752-1688.13038

streamflow forecasts and their impact on associated reservoir system projections."[4] Initial Testbed results found that a new dataset developed by Reclamation staff called "Climate Informed k-nearest neighbors" (Clim-kNN) outperformed existing inflow forecasts. While Clim-kNN has not yet been incorporated in CRMMS 24 Month Study official methodology, the December 2nd SEIS presentation use of updated CRMMS inflow forecasts to reflect a lower range of flows indicates that Reclamation is aiming to more accurately assess SEIS alternatives considering a warmer and drier future.[5] We ask that Reclamation continue improving such methodologies, building off of the body of work referenced above, including low flow scenarios such as multiple years of 2.5 million acre feet of unregulated inflow (2002)to reflect such futures in all official SEIS alternative analyses.

B. *Addressing CRMMS "outyear" 2026 rebound displayed in preliminary alternatives analyses during SEIS Public Informational Webinar*. Based on the Reclamation's SEIS preliminary CRMMS alternative analyses figures presented on December 2, 2022, we believe that the Lake Powell and Lake Mead are in fact reaching more realistic estimates given the use of 80% of early 2000's hydrology inflows. Nevertheless, it remains important for Reclamation to address the "outyear" rebound dynamic.

   This "outyear" rebound dynamic is generated under this new 80% ESP Analysis due to use of 2005 inflows, which were 125% of average, and is generated in the CRMMS 24 Month Studies, due to use of ESP trace 50th percentile for the Minimum Probable forecast after the initial two years with the 25th percentile. This rebound effect has hindered appropriate management outlooks and discussions in the 24 Month Study projections, and we are looking to Reclamation to avoid this dynamic in SEIS alternatives analyses. If Reclamation plans to continue use of 2002 - 2005 hydrology for the SEIS analyses, several iterations and randomizations of these water year inflows will be important. More specifically, we recommend allowing water years to repeat at least twice, and not requiring all water years to be included. For example, instead of 2002 - 2005 acting as 2023 - 2026, use: 2005, 2002, 2002, and 2004, or 2002, 2003, 2002, and 2004, and so on. We want to avoid a false sense of rebound in the future where no such indication exists within our understanding of climate projections, plausible Basin conditions, and recent trends.

C. *Promoting transparency by providing public documentation and model files of CRMMS updated methodology.* In order to inspire confidence in newly developed methods and datasets to support SEIS alternative analyses through CRMMS, we request that Reclamations produce public documentation on both the updated methodologies and the underlying analyses and specific logic that led to newly developed methods and datasets, in addition to the associated CRMMS model files to enable reproducibility by external stakeholders.

[5] Baker, S. A., B. Rajagopalan, and A. W. Wood. (2021). "Enhancing ensemble seasonal streamflow forecasts in the Upper Colorado River Basin using multi-model climate forecasts." *J. Am. Water Resour. Assoc.* 57 (6): 906–922. https://doi.org/10.1111/1752-1688.12960

D. *Extending the scope of impact analysis beyond storage conditions and static trigger levels at Lakes Powell and Mead to include area activities under the Drought Contingency Plans as applicable, including in and around the Colorado River Storage Project's Initial Units*.

IV. **Incorporate flexible decision points and management tools into decision-making processes and operating procedures.** Specific operational modifications to consider for greater operational flexibility in light of near-term risks include:

A. *Changes to timing and constraints of decision points* - Operational decisions under the 2007 Interim Guidelines are based on single point in time modeling results that have not served the system well. For example, relying solely on the August 24 Month Study to inform annual release determinations from Lake Powell for the upcoming water year precludes useful management adjustments based on actual conditions throughout the year. Moreover, limiting opportunities to adjust operations under the April 24 Month Study solely for the purpose of accomplishing greater releases from Lake Powell (i.e., see Section 6 of 2007 Interim Guidelines regarding adjustment to annual releases based on April 24 Month Study) are counterproductive to the purpose and need of the SEIS process. Reclamation should move away from only relying on the August and April 24 Month Studies toward a more phased decision approach to allow annual release determinations to be adjusted as needed on a more seasonal basis. While this may complicate annual water planning objectives, it can help avoid or disincentivize actions that could be perceived as manipulating rulesets to advantage one basin at the expense of another. Moreover, it reduces the need to adjust under emergency powers or mid-year reviews for which those same water planners would have to anticipate and prepare for anyway or be caught unawares when it happens.

B. *Updates to the Drought Response Operations Agreement and related procedures* - The SEIS Notice indicates the No Action Alternative will include the Colorado River Drought Contingency Plan operations layered on top of shortage and coordinate reservoir management activities under the 2007 Interim Guidelines. The scope of the SEIS, therefore, will include, among other things, the Upper CR Basin Drought Response Operations Agreement (DROA). Recent lessons suggest that consensus updates to the DROA could help improve reservoir operations and streamline its utility under modified SEIS operations. Possible updates that could be made through a revised framework among the parties include:

1. Expanding the DROA's purpose and intent to include protection of critical infrastructure at Glen Canyon Dam (in addition to protecting minimum power pool and helping maintain compact compliance). This type of update would provide two benefits. First, it could help resolve some debates over the effectiveness of DROA releases from Initial Units. Second, it could directly help "ensure that Glen Canyon Dam continues to operate under its intended design."

2. Revising the DROA Framework to allow for planning timelines that provide for consensus decisions on how to protect against a Spring dip in storage, which currently precedes final decisions for DROA planning from year to year. To further assuage future concerns with DROA activities, the updated process could fold in additional check points for collaborative agreement on how to manage DROA releases throughout the year.

3. To incentivize both (i) and (ii), consider removing the volume of water released under DROA from the calculations for coordinated management of Lake Powell and Lake Mead (i.e.,make DROA water storage on top of coordinated reservoir water a/k/a top storage). If the DROA water is intended to protect infrastructure and power pool at Glen Canyon Dam, releasing it as part of Powell/Mead balancing operation would be counter-productive. Similarly, allowing for the DROA water to be top storage that is released as needed regardless of coordinated Powell/Mead operations would allow releases to be made when they are actually needed, and not solely based on different planning horizons (i.e., completion of the April 24 Month Study or runoff estimates following snow seasons, etc.). These types of flexibilities *may* help improve and overcome obstacles associated with the current DROA.

D. *Modifications to the Lower Basin Intentionally Created Surplus Program* - ICS has been a successful tool in encouraging efficient use and management of Colorado River water, increasing overall system storage in Lake Mead, and providing additional operational flexibilities for Lower Basin water users. However, there has been concern that ICS rules allow 'gaming' of the system, where Lower Basin ICS creators could add or remove stored ICS from Lake Mead in ways that potentially manipulate forecasts used for determining operations. Updates to the Lower Basin ICS program, including Extraordinary Conservation ICS, DCP ICS, and BICS ICS, may improve coordinated management of the CR infrastructure to protect system integrity, health and safety within the Basin, while reducing the risk of potential 'gaming of the system'. Specific short-term updates that may be relevant for SEIS consideration include:
   1. Enabling Upper Basin facilities to accept storage of Lower Basin ICS water. Allowing water to be stored where needed can enhance opportunities for protecting critical infrastructure as needed in both the Upper and Lower Basins.

   2. Constraining the take of ICS storage to protect critical storage elevations at Lake Powell in addition to Lake Mead. Just as the Lower Basin Drought Contingency Operations limit the take of ICS when Lake Mead storage is below 1,110 feet, updates to the program that allow for storage of ICS in the Upper Basin could constrain release of ICS to avoid risk to critical infrastructure at Lake Powell (or other Upper Basin facilities).

   3. Removing ICS storage volumes from the calculations for coordinated management of Lakes Powell and Mead - i.e., make ICS storage top storage that is not counted towards lake elevations when making equalization and balancing determinations under the Guidelines. Similar to the DROA updates suggested above, ICS

conservation in the Lower Basin can be incentivized and thereby benefit the system by removing the volume of ICS stored in CR facilities from the calculations for coordinated management of Lakes Powell and Mead. If ICS is allowed to be stored in the Upper Basin (or releases from the Upper Basin are allowed to be reduced by the same amount of ICS created and stored in the Lower Basin), then including the volume of created and stored ICS in the balancing calculations between Lakes Powell and Mead is no longer appropriate. Rather, the focus could turn to identifying how and when the ICS volumes could work to help protect integrity throughout the system. Moreover, changes in ICS creation volumes as allowed under the Interim Guidelines for "changed conditions, emergency, or hardship" becomes less of a trigger for scrutiny and debate between Upper and Lower Basin parties because they would no longer inform the accuracy of suitable annual release determinations from Lake Powell from year to year.

E. *Changes to the mid-year review process* - The SEIS process must include updates to the mid-year review process as outlined in the 2007 Interim Guidelines if it is going to ensure operational decisions can be adjusted to address conditions as they change within the Basin beginning with Water Year 2023. The current mid-year review process only allows the Secretary to consider operational revisions to the Annual Operating Plan if requested by any Basin State or the Upper Colorado River Commission. However, the Secretary can only make a one-time revision through this mid-year review to apply for the remainder of the water year. The decision to make any revisions is intended to be "based on objectives to avoid curtailment of uses in the Upper Basin, minimize shortages in the Lower Basin, and not adversely affect the yield for development in the Upper Basin." Further, to perform the review, the Secretary must rely on the April 1 forecast of April through July runoff among other relevant factors. Finally, the Secretary can only make revisions to Lower Basin operations to allow for additional releases from Lake Mead. Important modifications to this process for the near-term management of the CR infrastructure include:

1. Allowing not only the States or Upper Colorado River Commission, but also other relevant parties, including the Secretary herself, to call for a mid-year review of CR operations.

2. Expanding the reasonable bases for a mid-year review to include protection of CR infrastructure's integrity, health and safety, consistent with the stated purpose of the SEIS.

3. Acknowledging the need for operational decisions to be made or confirmed in phases throughout the water year. The updated mid-year review process should, either be in addition to phased decision making processes throughout the year or be allowed to remove the current implied limitation that operational revisions can only be made once to apply for the remainder of the Water Year.

4. Expanding the actions that can be taken in a mid-year review to include reduction in releases from Lake Powell or Lake Mead as needed to protect identifiable risks to system integrity, health and safety within the Basin.

5. Updating the factors the Secretary will consider in performing the mid-year review to include the most relevant modeling as agreed to by the CR community at this time.

6. Allowing for other considerations or limitations raised by relevant CR stakeholders based on changed conditions, emergency or hardship, as appropriate.

State of Utah

SPENCER J. COX
Governor

DEIDRE M. HENDERSON
Lieutenant Governor

Colorado River Authority of Utah

Gene Shawcroft, P.E.
River Commissioner

Amy I. Haas
Executive Director

December 20, 2022

Reclamation 2007 SEIS Interim Guidelines SEIS Project Manager

Upper Colorado Basin Region
125 South State Street, Ste. 8100
Salt Lake City, UT 84138

Re: Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead

Dear Deputy Secretary Beaudreau:

On behalf of the state of Utah, I am pleased to submit the following response to the above-referenced notice published in the Federal Register on (November 17, 2022). The state appreciates the opportunity to provide comment during this scoping phase of the National Environmental Policy Act (NEPA) process for the development of a Supplemental Environmental Impact Statement (SEIS) for the 2007 Colorado River Interim Guidelines (2007 Interim Guidelines) Record of Decision (ROD).

Utah supports a proactive response to address critical reservoir elevations and low runoff in the Colorado River system. Together with the other Upper Division States of Colorado, New Mexico and Wyoming, Utah is actively involved in state-based efforts to address the exigent situation in the Colorado River Basin, principally through the Upper Basin 5 Point Plan.

While the Colorado River is a shared resource, the Upper Division States have historically far exceeded our flow obligation at Lee Ferry under the 1922 Colorado River Compact (Compact). For example, over the last ten years 85.5 million acre-feet (MAF) of water has passed Lee Ferry, exceeding the Upper Division States' Compact obligation of 75 million during any ten consecutive year period.[1] Moreover, during the last 23 years (a.k.a., the drought of record, or "Millennium Drought") the average ten-year progressive flow at Lee Ferry is 93 MAF, yet Lake Mead continues to precipitously decline. Nevertheless, Utah recognizes the need for collective action by all seven Colorado River basin states (Basin States), the federal government and all sectors who rely on the Colorado River to protect the system. Utah is hopeful that a basinwide consensus alternative can be developed and will emerge as the Preferred Alternative for the SEIS. Accordingly, Utah offers the following comments in response to the NOI.

[1] Article III(d), 1922 Colorado River Compact ("The States of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years reckoned in continuing progressive series beginning with the first day of October next succeeding the ratification of this Compact").

I. Scope of Potential Action

A. Compact Compliance

Among the needs for the SEIS identified in the NOI is the potential that the U.S. Bureau of Reclamation (Reclamation) may be required to "modify current operations and reduce Glen Canyon Dam downstream releases" to ensure that Glen Canyon Dam continues to operate under its intended design. NOI at 69043. Further, Reclamation "anticipates revising Section 6.C. ("Mid-Elevation Release Tier") and 6.D ("Lower Elevation Balancing Tier") [of the 2007 Interim Guidelines] to *modify and/or reduce* the quantity of water released from Glen Canyon Dam." NOI, p. 69044 [Emphasis added]. Currently, under the 2007 Interim Guidelines, the Mid-Elevation Release Tier requires an annual release volume of 7.48 MAF from Lake Powell unless Lake Mead elevations dictate an increased release volume. Moreover, the Lower Elevation Balancing Tier contemplates a balancing release from Lake Powell as low as 7 MAF depending on the respective contents of the two reservoirs.

Since the 1960s, releases from Glen Canyon Dam have been essential to ensuring the Upper Division States' continued compliance with Article III of the Compact. Utah recognizes that the Secretary of Interior has specific authorities to operate Glen Canyon Dam and other Colorado River reservoirs within the confines of existing federal law. However, Utah will not support an SEIS alternative that may be construed as interfering with or negatively impacting the Upper Division States' obligations under Article III of the Compact.

B. 2019 Drought Response Operations Agreement (DROA)

According to the NOI, "[f]or planning purposes, Reclamation's analysis will assume that additional releases pursuant to the Drought Response Operations Agreement ("DROA") will be administered according to the terms approved by the DCP [Drought Contingency Plan] Act." NOI at 69044.

DROA actions, as authorized by the 2019 Upper Basin Drought Contingency Plan, have emerged as a tool to address critically low reservoir elevations at Lake Powell. Of the 661,000 acre-feet of water subject to release under the 2021 DROA "Emergency Action" and 2022 DROA Plan, approximately 625,000 acre-feet, or almost 95% of the water has been or will be released from Flaming Gorge Reservoir in Utah and Wyoming.

Utah supports DROA actions that conform to the 2019 Agreement, as well as the Upper Division States' commitment to begin development of a potential 2023 DROA Plan as part of the 5 Point Plan. However, Utah will condition its support for any additional DROA releases "assumed" by Reclamation as a potential alternative under the SEIS on the following:

1. DROA actions must be *effective* as required by the DROA and defined in the 2022 DROA Framework Document;
2. Balancing releases at Glen Canyon Dam that include water released from upstream Initial Units, primarily Flaming Gorge, in 2021 and 2022 will not be supported;
3. Balancing releases at Glen Canyon Dam of any future DROA releases from Flaming Gorge will not be supported if the calculation of the balancing releases includes DROA water; and
4. No amendment or interpretation of the DROA through the SEIS process will be allowed.

C. Tribal Rights

The NOI is notably silent on the potential impacts to the Colorado River Tribes from the proposed modifications of the 2007 Interim Guidelines. As home to the Navajo Nation, the Ute Tribe of the Uintah and Ouray, the Ute Mountain Ute and the Paiute Indian Tribe of Utah, the state will not support an alternative that prevents any Tribe with lands in Utah from developing water rights recognized under federal law and decreed under state law. This includes, but is not limited to, the opportunity for the Navajo Nation in Utah to develop its recognized rights under the 2020 Navajo Utah Settlement, P.L. 116-260.

D. Timeframe/Duration

According to the NOI, "[t]he SEIS…does not interfere with, supplant, or supersede th[e] separate post-2026 guidelines development process. Rather, this SEIS will inform and complement the development of post-2026 guidelines." NOI at 69043. Moreover, the NOI states that through the SEIS, "Reclamation is initiating efforts to revise operating guidelines for the operations of Glen Canyon and Hoover Dams in 2023 and 2024 operating years" but that "[d]evelopment of modified operating guidelines will also inform potential operations in the 2025 and 2026 operating years; however…operational strategies for 2023-2024 may need to be further revisited for subsequent operating years." NOI at 69043.
Notwithstanding the lack of clarity in the NOI regarding the timeframe and duration of the potential actions contemplated by Reclamation, Utah will not support an SEIS action that extends beyond December 31, 2025, or through the preparation of the 2026 Annual Operating Plan (Interim Period). Any action beyond the Interim Period is subject to a discrete NEPA process for the development of post-2026 guidelines.

E. Accounting

Accurate and transparent accounting and modeling are essential elements of DROA and the Cooperative Action taken in Spring 2022. The success of any potential action contemplated under this SEIS process must honor the accounting commitments under DROA and the Cooperative action, and the accounting for each action must be kept separate and distinct. Utah will not support an action that lacks sufficient transparency in accounting for each drought response action taken.

F. Environmental Compliance

The potential for reduced and/or modified releases from Glen Canyon Dam as described in the NOI may have implications for the Long-Term Experimental Management Plan (LTEMP) at Glen Canyon Dam. In particular, the hourly, daily and monthly releases as prescribed by the LTEMP ROD may be impacted by changes to releases under the 2007 Interim Guidelines Mid-Elevation Release and Low Reservoir Elevation Balancing Tiers. It is our expectation that any action considered in this SEIS process will be consistent with the LTEMP ROD and, if not, subject to a separate NEPA process.

II. Preferred Alternative

Utah supports the consideration of the following actions during the SEIS process for potential inclusion in a Preferred Alternative:

A. Assessment of Evaporation and Losses

Reclamation must begin to assess evaporation and system losses against deliveries to Section 5 Contractors in the Lower Basin immediately, but in no event later than calendar year 2023. This action could contribute as much as 1.5 MAF annually to the system and would result in greater equity between the two basins as the Upper Division States' uses, including Utah's, are subject to reductions based on evaporation and other system losses.

Utah believes that Reclamation can immediately apply these assessments. Alternatively, Utah believes such assessment should be analyzed in the SEIS process and incorporated into a Preferred Alternative. The statement in the NOI that this issue will be investigated "separate from the development of the SEIS" (NOI at 69045) culminating in a written report in 2023 is insufficient.

B. Long-term, durable conservation measures throughout the Basin

Utah supports sustainable, meaningful conservation activities throughout the Colorado River basin. We appreciate Reclamation's commitment to "pursue system conservation actions in the Upper and Lower Basins" [NOI, p. 69044]. However, Utah prefers more durable conservation measures with demonstrable benefits to the system, in particular conservation to increase elevations at Lake Powell and other Initial Units, through demand management activities.

To this end, Utah requests that the terms of the 2019 Demand Management Storage Agreement (DMSA) be extended to individual Upper Division States, including reconsideration of the 500,000 acre-foot DMSA storage limitation, as an action under this SEIS. In this way, each Upper Division State could individually benefit from the provisions of the DMSA in the absence of an Upper Basin Demand Management Program, including the ability to store conserved water at Lake Powell and other Initial Units in accordance with the terms of the DMSA.

C. Increased Lower Basin Reductions at Higher Elevations

Pursuant to the NOI, Reclamation anticipates revising the Section 2.D Shortage Conditions in the 2007 Interim Guidelines to "decrease the quantity of water that shall be apportioned for consumptive use in the Lower Division States (Arizona, California and Nevada)." NOI at 69044. Utah supports deeper reductions to the Lower Division States' consumptive uses at higher elevations than those currently required by the 2007 Interim Guidelines, including reductions in California's consumptive uses which are not currently required under Section 2.D of the 2007 Interim Guidelines.

D. Engagement with Mexico

While Utah recognizes the domestic nature of NEPA generally and this SEIS process, in particular, we support appropriate parallel binational discussions with the Republic of Mexico on potential actions it may be willing to undertake to protect the system consistent with the 1944 US-Mexico Water Treaty. For more than seventy years, Mexico has been a key partner in addressing changing conditions in the Colorado River Basin, most recently through Minute 323 to the 1944 Treaty.

III. Framework Agreement Alternative

The Upper Division States through the Upper Colorado River Commission (UCRC) and the Lower Division States have committed to a process to develop a consensus Framework Agreement Alternative. NOI at 69044. The Basin States will be working on this process through January 31, 2023. Given the urgency of completing this SEIS for the 2023 – 2024 period, we appreciate Reclamation's commitment to provide time for the Basin States to revise and refine the conceptual Framework Agreement Alternative under consideration.

IV. Utah's Position on Post-2026 Criteria

The basis for the SEIS is the failure of the 2007 Interim Guidelines to adequately protect the system. Utah will not support the continuation of the Guidelines beyond the Interim Period (2026) as contemplated by the proposed No Action Alternative. NOI at 69044. Operations under the 2007 Interim Guidelines have revealed the danger of operating a system based on a fixed hydrology rather than a variable one; the shortcomings of operating Lakes Powell and Mead based on elevations rather than volumes; the difficulty of basing reservoir operations on unreliable forecasts; and, reservoir operations that favor, or can be manipulated to favor, one basin over the other.

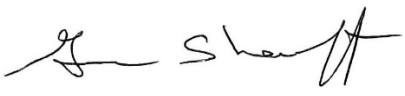
While the NOI represents that the post-2026 operations will be subject to a separate NEPA process, the NOI also states that the SEIS "will inform and complement the development of post-2026 guidelines." NOI at 69043. Accordingly, Utah will insist on a plan for post-2026 Operations that is resilient, will adapt to changing conditions on the river, can be implemented in a fair and transparent manner and will be sustainable over time.

In particular, Utah will insist on operations that are effective across the full range of possible future hydrologic conditions and coordinated reservoir operations that are not subject to balancing releases based on tiers/elevations or inaccurate, premature forecasting. Furthermore, Utah will support operations that include flexibility through transparent accounting and modeling and operations that can adequately respond to changing hydrology and reservoir elevations. Finally, Utah will require that post-2026 operations will be equitable throughout the Colorado River system, and will not favor one basin, or one state, over the other.

V. Conclusion

Once again, the state of Utah appreciates the opportunity to provide comment. We also support the initiative taken by the Department of Interior, through Reclamation, to respond to the critical situation on the river through this NEPA process and absent a Lower Basin shortage declaration by the Secretary of Interior. See Consolidated Decree of the Supreme Court in *Arizona v. California*. It is Utah's expectation that Reclamation will consult with the Basin States on the development of a Preferred Alternative, including consideration of a potential consensus Framework Agreement Alternative. We look forward to continued cooperation and partnership with the federal government, the Colorado River Tribes and key stakeholders in resolving the unprecedented issues facing the Colorado River Basin.

Regards,



Gene Shawcroft, P.E.
Colorado River Commissioner, State of Utah

COLORADO
Colorado Water Conservation Board
Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

December 20, 2022

Genevieve Johnson
Reclamation 2007 Interim Guidelines SEIS Project Manager
Upper Colorado Basin Region
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VIA ELECTROINIC MAIL
CRinterimops@usbr.gov

RE: State of Colorado's Scoping Comments on the Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead

Dear Ms. Johnson,

This letter outlines the State of Colorado's recommended scoping issues to be addressed in a future Supplemental Environmental Impact Statement ("SEIS") for the December 2007 Record of Decision entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead ("2007 Interim Guidelines").

COLORADO'S INTERESTS

Because no major rivers flow into Colorado, and we are without the benefit of large reservoirs above our places of use that provide a steady, reliable source of supply even in drought years, Colorado must satisfy all its water demands from sources within the state. The Colorado River and its tributaries supply over forty percent of Colorado's water needs and provide water to the majority of the State's population. In Colorado, we have a long history of administering water rights according to the physical and legal availability of water supply in a particular location at a particular time. We rely on the snowpack and subsequent runoff for our water use, thus our use is subject to available water supplies under hydrologic conditions each year. Colorado's system of administration according to water availability has adapted well to changing circumstances, including a more than twenty-year drought occurring since 2002. Importantly, Colorado has had to cut uses and take shortages nearly every year, including cuts to water rights that are senior to the 1922 Colorado River Compact.

In addition to the State's administration of water rights based on legal and physical availability, Colorado and the other Upper Division States have contributed over 661,000 acre-feet of water from upstream reservoirs to protect critical elevations in Lake Powell. Colorado has a substantial interest in the efficient management and operation of Lake Powell and Lake Mead, especially in current and ongoing dry conditions. Colorado therefore urges the Bureau of Reclamation ("Reclamation") to manage these reservoirs within the available supply of the Colorado River while meeting the needs of the Basin States without jeopardizing significant, legally protected rights to the water of the Colorado River or compromising its ability to serve the present uses and future needs of Colorado citizens. In light of these priorities and concerns, Colorado submits these comments.

COMMENTS

A. Legal Framework

The 2007 Interim Guidelines are subject to the Law of the River,[1] and any SEIS must be consistent with that overarching legal framework. Any expansion of authorities or disregard for the Law of the River in such SEIS risks the certainty of process established by the Law of the River. Moreover, the SEIS should remain true to the scope, purpose, and timeline of the existing 2007 Interim Guidelines and modify operations only as to Lake Powell and Lake Mead and as to shortages in the Lower Basin.

1. Relationship with Existing Law

Section IX.E of the 2007 Interim Guidelines describes the relationship of the Guidelines with existing law. Reclamation must develop the SEIS consistent with the provisions of Section IX.E. Specifically, the SEIS should not provide for any operations that guarantee a firm supply of water to any water user, change or expand authorities under applicable federal law with respect to authorities in the Upper Division States, require curtailment of water rights in the Upper Division States, or in any way change the apportionment made for use within each Basin under the 1922 Colorado River Compact, or change the allocations made for use within the individual Upper Division States under the 1948 Upper Colorado River Basin Compact. Importantly, the 1922 Colorado River Compact equitably divides the waters of the Colorado River system between the Upper Basin and the Lower Basin in perpetuity. The SEIS must not conflict with these foundational elements of the 1922 Compact.

2. Secretarial Authority in the Lower Basin

While the 1948 Upper Colorado River Basin Compact allocates water among the Upper Division States, the Secretary delivers water from Lake Mead to users in the Lower Division States under the authorities of federal statutes and the U.S. Supreme Court's decree in *Arizona v. California*. Thus, the Secretary serves as water master, enjoys broad authority, and plays a unique role in the management of the lower Colorado River system. The Secretary's role in the lower Colorado River system is recognized in

[1] The "Law of the River" refers to the body of law affecting interstate and international use, management, and allocation of water in the Colorado River system, including the 1922 Colorado River Compact, the 1944 Mexican Water Treaty, the 1948 Upper Colorado River Basin Compact, United States Supreme Court decisions and the United States Supreme Court Decree in *Arizona v. California*, and numerous federal statutes and regulations.

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the 2007 Interim Guidelines. The Secretary makes annual determinations regarding the availability of water to be delivered from Lake Mead by considering such factors as the amount of water in system storage and predictions for natural runoff. While the 2007 Interim Guidelines were designed to provide some predictability and certainty, they were also designed to address shortages in the Lower Basin. Given the inadequacy of the Guidelines based on the history of operations, overuse in the Lower Basin, and unprecedented hydrologic conditions, the scope of the SEIS should include modified operations that are rooted in the reality of available supply and depleted storage in the Colorado River system.

3. Consultation

The 2007 Interim Guidelines provide for consultation with the Basin States and a goal to develop and achieve a consensus approach. Colorado supports a collaborative approach, so long as it does not implicate any obligations under the 1922 Colorado River Compact or harm Colorado's significant rights and interests in the Colorado River. However, regardless of whether a consensus is reached through collaboration, Colorado also recognizes that any actions taken to modify releases at Glen Canyon Dam are under the Secretary's authority without the consent, endorsement, or acquiescence from the State.

B. Scope

The 2007 Interim Guidelines "are intended to be applied each year during the Interim Period with respect to the operation and management of the waters of the Colorado River stored in Lake Powell and Lake Mead." Reclamation has stated the purpose of the SEIS is to supplement the 2007 Interim Guidelines "in order to modify operating guidelines of Glen Canyon and Hoover Dam to address histoirc drought and low runoff conditions in the the Colorado River Basin." Given the informal initiation of the NEPA process for post-2026 reservoir operations for Lake Powell and Lake Mead in June 2022, and the intent to initiate formal NEPA actions in 2023, Colorado requests that the SEIS be narrow in scope to avoid any duplication, interference, or conflict with the post-2026 reservoir operations process.

1. Temporal Scope

The Interim Period under the 2007 Interim Guidelines runs through December 31, 2025—through the annual operating year of 2026. Colorado recommends the SEIS provide for any modified operations only through the same Interim Period, expiring December 31, 2025.

2. Geographic Scope

The 2007 Interim Guidelines apply to operations in Lake Powell and Lake Mead and to reduced deliveries from Lake Mead to Lower Division States in shortage conditions. Colorado recommends the SEIS limit the geographic scope of any modified operations to be consistent with the Guidelines, and to not conflict with concurrent processes such as actions being taken under the Drought Response Operations Agreement—a critical component of the Upper Basin's Drought Contingency Plan ("Upper Basin DCP")—and pursuant to the provisions in that Agreement between Reclamation and the Basin States that serve as an overlay to the 2007 Guidelines but are separate and distinct from the Guidelines and from this SEIS process.

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3. Substantive Scope

The 2007 Interim Guidelines provide for the coordinated operation of Lake Powell and Lake Mead in dry and low reservoir conditions, and they establish a shortage sharing strategy in the Lower Division States. Colorado recommends the SEIS limit the scope of any modified operations to Lake Powell and Lake Mead and shortage sharing in the Lower Basin. Colorado urges the Secretary to implement shortage sharing criteria in the Lower Basin that includes increased volumes and triggers at higher elevations than contemplated by the Guidelines, as more fully described below. However, the SEIS should not expand beyond reservoir operations at Lake Powell and Lake Mead and shortage sharing in the Lower Basin. The SEIS should not extend to operations of other Colorado River system reservoirs.

Moreover, any assumption of reductions in use or curtailment in the Upper Basin is beyond the scope of the SEIS. Uses in Colorado are determined by hydrology and the physical and legal availability of water at a particular time and location. The authority to administer and distribute the waters of the State are vested with the Colorado State Engineer.

C. Relation to Upper Basin Drought Contingency Plan

It is unclear how Reclamation intends to distinguish between actions taken pursuant to the Upper Basin DCP and actions developed under the SEIS. Colorado recommends that Reclamation clearly acknowledge the distinction between the 2019 Upper Basin DCP and this SEIS process. Concurrent with and separate from the 2007 Interim Guidelines are actions taken pursuant to the 2019 Upper Basin DCP. The Upper Basin DCP comprises a series of interstate agreements, finalized and codified in 2019, that are currently being implemented. Importantly, these are separate and distinct processes and actions, with separate and distinct scopes. Colorado recognizes that modeling of all DCP actions may inform alternatives analyzed for the SEIS. However, any modified operations under the SEIS should not presume or incorporate actions that have not been agreed upon by the Upper Division States pursuant to the Upper Basin DCP. The SEIS should not duplicate, interfere or conflict with the concurrent actions of the Upper Basin DCP.

D. Operations of Lake Powell and Lake Mead and Shortage Conditions in the Lower Basin

The operating experience under the 2007 Interim Guidelines and the Lower Basin DCP underscores the inadequacy of the shortage triggers imposed at critical reservoir elevations to address the impacts of dry hydrology and depleted storage. That inadequacy has been exacerbated by continued overuse in the Lower Division States triggering excess releases from Lake Powell through balancing despite decreased inflows into Lake Powell. The operations of Lake Powell and Lake Mead must reflect the reality of diminished supplies and depleted storage in the system.

1. System Loss Accounting in the Lower Basin

As a first step to respond to current hydrology and reservoir conditions, it is critical to address evaporation and system loss in the Lower Basin. The SEIS and any proposed

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modified operations should include Lower Basin evaporation and system losses in the assessment. Colorado further emphasizes the point made by the Upper Colorado River Commission that failing to fully account for the Lower Basin's actual depletions, evaporation, seepage, and other system losses has also contributed to the declining and current reservoir elevations.

2. Reduced Deliveries from Lake Mead

In addition to accounting for system losses, Colorado urges Reclamation to develop shortage sharing criteria in the Lower Basin that includes increased shortage volumes and triggers at higher elevations in Lake Mead. We believe it is critical to have a meaningful and significant net decrease in deliveries from Lake Mead. The SEIS must, at a minimum, address overuse in the Lower Division States by further reducing deliveries from Lake Mead beyond what is provided for in the 2007 Interim Guidelines and the Lower Basin DCP. The SEIS should prohibit deliveries of ICS when in shortage conditions because any releases from Lake Mead due to ICS deliveries in shortage conditions is contrary to Reclamation's stated purpose and need for the SEIS.

As mentioned above, the Secretary exercises broad authority in the Lower Basin to manage water supplies and determine how much and under what circumstances deliveries of water are made from Lake Mead. While the Secretary is required to base annual operations of Lake Powell and Lake Mead on the Guidelines, the Secretary reserves the authority to take other operational actions if extraordinary circumstances arise, such as "operations that are prudent or necessary for safety of dams, public health and safety, other emergency situations, or other unanticipated or unforeseen activities arising from actual operating experience." This Section 7.D in the Guidelines reserves broad authority of the Secretary to act to protect continued coordinated operations of Lake Powell and Lake Mead and to implement meaningful and significant shortages in the Lower Basin.

3. Balancing Releases

Recent modeling by Reclamation shows a heightened risk of system failure with balancing releases when in the Lower Elevation Balancing Tier. In order to protect critical elevations at Lake Powell, to in turn protect critical infrastructure at Glen Canyon Dam, and to continue to provide a secure source of supply for on-going releases to Lake Mead, all balancing releases made when Lake Powell is in the Lower Elevation Balancing Tier from Glen Canyon Dam should be suspended for the duration of the Interim Period.

E. No Action Alternative

Colorado does not support the No Action Alternative set forth in the NOI as the Preferred Alternative for the SEIS. Due to prolonged drought and low runoff conditions accelerated by climate change and overuse in the Lower Basin, the 2007 Interim Guidelines and the Lower Basin DCP are inadequate to preserve and protect critical elevations at Lake Powell and Lake Mead. Failing to fully account for the Lower Basin's actual depletions, including evaporation and system losses, failing to adequately reduce releases from Lake Mead, and allowing for continued balancing has contributed to the declining and current reservoir elevations. Therefore, any continuation of the current operations or extension of the 2007 Interim Guidelines is unsustainable and contrary to Reclamation's stated purpose and need of the SEIS.

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F. Framework Agreement Alternative

Colorado, with the other Upper Division States, has committed to a process with the Lower Division States to develop a consensus Framework Agreement Alternative. The seven Basin States will be working on this process through January 31, 2023. In addition, Colorado is engaging with the Southern Ute Indian Tribe and the Ute Mountain Ute Indian Tribe on this process and along with the other Upper Division States, communicating with other Upper Division Tribes about the process. Given the urgency of completing the SEIS, we appreciate Reclamation's commitment to provide time for the seven Basin States to revise and refine the conceptual Framework Agreement Alternative.

RESERVATION OF RIGHTS

Colorado's comments are intended to highlight overarching issues that will require acknowledgment, specification, or clarification as the SEIS process continues to progress. Colorado's failure to provide specific comments regarding details of the SEIS shall not be construed as an admission with respect to any factual or legal issue or the waiver of rights for the purposes of any future legal, administrative, or other proceeding. Furthermore, Colorado reserves the right to comment further on SEIS documentation as Reclamation proceeds with subsequent phases of the SEIS process.

CONCLUSION

Colorado thanks Reclamation for the opportunity to provide these comments on the NOI for the development of a SEIS for the 2007 Interim Guidelines. We look forward to continuing our partnership with you and our partners across the Colorado River basin as we move forward in protecting and managing this critical resource.

Rebecca Mitchell

Rebecca Mitchell
Colorado Commissioner
Upper Colorado River Commission

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SOUTHERN NEVADA
WATER AUTHORITY

STATE OF NEVADA

COLORADO RIVER COMMISSION
OF NEVADA

December 20, 2022

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

Re: Notice of Intent to Prepare a Supplemental Environmental Impact Statement

Dear Assistant Secretary Trujillo:

Over the past 20 years, the Southern Nevada Water Authority (Authority) has been a leader in conserving Colorado River water supplies and planning for a future with less water. The majority of Nevada's 300,000 acre-foot allocation is used within the Authority's service area and makes up 90 percent of the water supply for 2.3 million Nevadans (approximately 70 percent of our state's population) and the more than 42,000,000 people that visit Las Vegas each year. By investing in conservation programs and anticipating future water-supply problems, Nevada has reduced its consumptive use by almost 100,000 acre-feet per year (afy) over the last 20 years, despite adding approximately 750,000 people. The Authority and Colorado River Commission of Nevada (CRCNV) (collectively, "Nevada") further recognize that there is simply far less water for use in the Colorado River Basin (Basin) than has been allocated. This imbalance must be addressed, which will require reductions in use by all water users in all sectors. Nevada is committed to working with the other states, the country of Mexico, and various other stakeholders and water users to achieve an equitable and sustainable water-use and operations solution for the Basin.

On November 17, 2022, the Bureau of Reclamation (Reclamation), under the Department of the Interior's (Interior) direction, issued a Notice of Intent To Prepare a Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations For Lake Powell and Lake Mead (Notice). 87 FR 69043 (November 17, 2022) (collectively referred to as "SEIS" or "2007 Guidelines" for the existing operations under the preceding Record of Decision). Nevada appreciates and supports this effort to act quickly to stabilize the Colorado River through modified reservoir operations and reductions in consumptive uses. The Notice identifies the need for a SEIS that is directed at three sections of the 2007 Guidelines – specifically Section 2(D) (Determination of Lake Mead Operation under Shortage Conditions), Section 6 (the Coordinated Operation of Lake Powell and Lake Mead as to the Mid-Elevation Release and Lower Elevation Balancing tiers), and Section 7(C) (Implementation of Guidelines concerning the Mid-Year Review). The Notice also

states that the "Department currently lacks analyzed alternatives and measures that may be necessary to address such projected conditions," while identifying "Preliminary Alternatives." These are described as (1) No Action, (2) Framework Agreement Alternative, and (3) Reservoir Operations Alternative.

Through separate correspondence, the Authority has joined Central Arizona Water Conservation District (CAWCD) and The Metropolitan Water District of Southern California (MWD) to elaborate on specific concerns and unidentified consequences. Nevada offers the following comments and proposed Framework Agreement Alternative for Reclamation to consider for this SEIS.

Urgency in Adopting New and/or Modified Management Actions

At the time the 2007 Guidelines were developed, water managers were just beginning to quantify the impacts of climate change and warming temperatures on the Basin. Since that time, numerous scientists, academia, and agency staff have all concluded the future of the Colorado River is significantly hotter and drier than the hydrology used to arrive at the shortage reductions in the 2007 Guidelines. The primary hydrology used in the 2007 Guidelines was based on an average natural flow at Lees Ferry of 15.07 million acre-feet (maf)[1]. From 2000 to 2022, the average annual natural flow was approximately 12.19 maf[2], representing an annual reduction in supply of more than 12 times Nevada's current Colorado River use. Furthermore, recent studies suggest the Basin may continue to warm by 2.5 to 5 degrees Fahrenheit by mid-century[3] and each degree of warming represents approximately a 5 percent decrease in runoff. Observed intervening inflows significantly below the range of uncertainty of the analyzed hydrology combined with water use that has exceeded the natural supply has pushed the river to a breaking point. Reclamation modeling shows that within the next 3 years the status quo could result in losses of critical federal infrastructure, uncertainty in the ability to release water from Lake Powell to Lake Mead, and significant hydropower impacts — particularly for grid stability and more acutely for small power users that rely heavily on hydropower, and unpredictable timing and scale of future shortages — undermining a key objective in the development of the original 2007 Guidelines. Reclamation must act as swiftly as possible if the water users that are reliant upon the Colorado River are to have any certainty regarding the magnitude and quantity of future water use, even in the short term. Understanding the magnitude and timing of water supply reductions is critical to successfully managing water resource portfolios and ensuring reliable water delivery to customers. Failing to act in 2023 to further reduce water use could result in the loss of over 1.97 maf of reservoir storage in Lake Mead, a 30 foot vertical decline. And if Lake Powell's release is reduced to protect the ability to release water through the power plant, the reduction in Lake Mead could be 5.36 maf, a 70 foot vertical decline[4]. These declines represent the loss of large volumes of critical reservoir storage that will not be easily refilled. Further depletion of reservoir storage is directly increasing risk and uncertainty about future supply reliability.

Scope

The scope of the SEIS should not be substantively different from that of the 2007 Guidelines. The three sections identified by Reclamation fundamentally form the basis of actions that can be implemented in a

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[1] Final EIS-Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead: Volume I, Chapter 3 – Affected Environment, U.S Bureau of Reclamation, October 2007.

[2] Provisional Natural Flow Data 1906-2022 Based on April, 2022 24-Month Study, Accessed May 2, 2022.

[3] Lukas, Jeff, and Elizabeth Payton, eds. 2020. Colorado River Basin Climate and Hydrology: State of the Science. Western Water Assessment, University of Colorado Boulder. DOI: https://doi.org/10.25810/3hcv-w477.

[4] Notice of Intent to Prepare a Supplemental Environmental Impact Statement, 80% ESP Analysis – 2002 to 2005 Trace, Public Information Webinar per 87 FR 69042, November 29, 2022. Presentation available at: https://www.usbr.gov/ColoradoRiverBasin/SEIS.html.

timely matter to meet the current crisis. While broader, and more inclusive, operating regimes are desired by many in the Basin, neither the 40,000,000 people that depend upon Colorado River water nor the environment through which it flows can afford to wait the several years it takes to negotiate such matters.

While not altering the scope of the SEIS, there are numerous complimentary actions that should be taken within the Basin to bolster the effectiveness of the 2007 Guidelines. The actions identified in the Drought Contingency Plans, the System Conservation Pilot Program, the 500+ Plan, and the Upper Basin's Five Point Plan all contribute to the stability of reservoir elevations. Their collective and interrelated nature require sufficient and accurate modeling to understand the range of impacts of the action alternatives that will be proposed in the SEIS.

Finally, other methods that help secure the water supply of the Basin have been proposed by Reclamation, Nevada, and others. These additional actions should be pursued with alacrity and in parallel with the operational changes contemplated by the SEIS. These include beneficial use definitions and determinations under 43 C.F.R. Part 417 (Procedural Methods for Implementing Colorado River Water Conservation Measures with Lower Basin Contractors and Others). It is well past time to prohibit the inefficient delivery, application, or use of water within all sectors and by all users; there simply is no water in the Colorado River System left to waste and each industrial, municipal, and agricultural user should be held to the highest industry standards in handling, using, and disposing of water. We further request that Reclamation act on the items articulated in the Authority's August 15, 2022, letter to Secretary of Interior Haaland, Assistant Secretary Trujillo, and Commissioner Touton[5]. It is critical that Reclamation pursue all options that will help reduce consumptive uses in the Basin and provide water supply reliability. To that end, Nevada strongly encourages Reclamation to immediately begin independent NEPA and ESA compliance for these activities.

Hydrology

The fundamental driver for the SEIS is changed hydrology. The success of the SEIS in curtailing future risk, balancing reservoir elevations, and protecting the water supply of 40 million people will depend on evaluating potential alternatives against hydrologic scenarios that encompasses the full range of future hydrologic risk, specifically including sequences of drier than observed historical flows. Nevada's internal modeling with the Colorado River Simulation System Model uses a Direct Natural Flow adjusted to an annual average of 11.0 maf, compared to the observed annual average of 14.7 maf. Reclamation has recently used 80 percent of the ensemble stream flow projections for modeling with the Colorado River Mid-term Operations Model. Using the appropriate tools and hydrologic assumptions will help ensure that the full range of risk is analyzed.

Operational Objectives

The purposes of the 2007 Guidelines as described in Section 4 of the Record of Decision are to:

- improve Reclamation's management of the Colorado River by considering trade-offs between the frequency and magnitude of reductions of water deliveries, and considering the effects on water storage in Lake Powell and Lake Mead, and on water supply, power production, recreation, and other environmental resources;

[5] Letter from Southern Nevada Water Authority General Manager John J. Entsminger to Secretary of Interior Debra Haaland, Assistant Secretary for Water and Science Tanya Trujillo, and Commissioner of the Bureau of Reclamation Camille Calimlim Touton, Dated August 15, 2022.

- provide mainstream United States users of Colorado River water, particularly those in the Lower Division states, a greater degree of predictability with respect to the amount of annual water deliveries in future years, particularly under drought and low reservoir conditions; and
- provide additional mechanisms for the storage and delivery of water supplies in Lake Mead to increase the flexibility of meeting water use needs from Lake Mead, particularly under drought and low reservoir conditions.

These objectives have not changed and continue to drive the need for the SEIS. Water supply and future operational certainty are paramount for water users, particularly our highly populated, river dependent urban areas. In order to successfully manage a water resource portfolio, water managers need to understand how and when water supplies will be reduced. Reducing available water supplies with little or no notice and predictability is significantly more likely to create economic disruptions. The Lower Colorado River Basin and the communities that the river serves are some of the most urbanized and arid regions of the United States. Nevada offers the following operational objectives for inclusion in the SEIS as a direct response to changed hydrology, operating Lake Powell and Lake Mead at levels previously uncontemplated, and to protect the water supply for the 40 million people that rely on the river for municipal use.

Ensure water can be released from Glen Canyon Dam

Reclamation has offered several presentations and briefings on risks associated with losing the ability to release water through the Glen Canyon Dam power plants. These risks fundamentally harm water supply reliability for all those that rely upon water in the Lower Basin. The inability to reliably release water from Glen Canyon Dam imposes unacceptable risk to Lower Basin water supply and the predictability of that supply. These risks are well documented and well understood in the exchange of letters between Assistant Secretary for Water and Science, Tanya Trujillo, and the Seven Basin States that occurred in April and May of 2022[6].

Any preferred alternative must ensure water deliveries from Glen Canyon Dam are not compromised, in turn requiring that sufficient elevations be maintained in Lake Powell.

Protection of ICS

Modifications to the 2007 Guidelines must uphold the contractual commitments of the Secretary of Interior to only deliver Intentionally Created Surplus (ICS) to the party that created such ICS. Many contractors, including the Authority, have spent years and invested hundreds of millions of dollars to conserve water that has helped to keep Lake Mead elevations higher than they otherwise would have been through the creation of ICS. Currently, ICS accounts for approximately 51 feet of Lake Mead's elevation. This storage must be preserved for the agencies that stored it.

Furthermore, under extremely limited circumstances, ICS that is stored in Lake Mead should be made available when Lake Mead is below elevation 1,025 feet to the contractor that stored the water if sufficient protections can be provided to satisfy the public health, safety, and welfare needs described below.

[6] Letter from Assistant Secretary for Water and Science Tanya Trujillo to Governor's Representative for State of Nevada John J. Entsminger dated April 8, 2022; Letter from Colorado River Basin States Representatives of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming to Assistant Secretary for Water and Science Tanya Trujillo dated April 22, 2022; and Letter from Assistant Secretary for Water and Science Tanya Trujillo to Governor's Representative for State of Nevada John J. Entsminger dated May 3, 2022

Protection of water supply for public health, safety, and welfare

Given the risk identified by Reclamation's recent modeling that Lakes Mead and Powell will decline below their respective power pools, and the consequent risk to public health, safety, and welfare, the preferred alternative should protect sufficient storage in Lake Mead to ensure that 18 months of deliveries necessary to meet public health, safety, and welfare can be made by Reclamation. As noted in the Notice:

> [T]he Department has concluded that immediate development of additional operational alternatives and measures for Lake Powell and Lake Mead are necessary to ensure continued "operations that are prudent or necessary for safety of dams, public health and safety, other emergency situations …" 2007 Interim Guidelines at Section 7.D. 87 FR 69044

For domestic uses, the river in the Lower Basin provides water to approximately 27 million people. For some of these communities, the Colorado River is their exclusive source of water, or other domestic sources are insufficient to cover public health, safety, and welfare needs. It is imperative that these water supplies are offered the highest protection under the preferred alternative.

Reclamation should also consider the impact of further reductions in hydropower generation on the regional electric grid. A reliable supply of electricity is an important element in public health, safety, and welfare considerations. Electric supply is decreasing, particularly in the Southwest region. Impacts to hydropower generation should therefore be considered under any alternative, as this resource staves off energy emergencies, limits critical outages, and helps stabilize the grid. Accordingly, CRCNV has provided more detailed comments in **Attachment 1**.

Related actions and considerations

Inclusion of Mexico

Mexico has been a progressive and dependable partner to the United States and Colorado River water users within the United States even as the worsening supply/demand imbalance has depleted storage within the system. In 2017's Minute 323 to the "United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande" signed February 3, 1944 ("1944 Water Treaty") for example, the United States and Mexico agreed on the "importance of aligning operations for both countries" and the need for their respective "governments and stakeholders to seek mechanisms to avoid reaching critically low reservoir elevations." Glen Canyon dam's infrastructure is currently threatened by significantly reduced inflows over the past two decades, in turn threatening to make deliveries to users in the Lower Basin difficult or impossible. Accordingly, the proposed Framework Agreement Alternative discussed below and in Attachment 2 hereto contemplates continued alignment of operations for users in both countries. Specifically, while the Tier 3 shortage volumes discussed below as a replacement for Section 2.D.1 of the 2007 Guidelines (500,000 combined acre-feet when Lake Mead is below 1,090 feet) do not expressly signal a revised shortage volume for Mexico to stay within the scope of the SEIS, to maintain alignment between the two countries Mexico's allocation would not exceed 1.375 maf when Lake Mead is below 1,090 feet and the overall Lower Basin allocation would not exceed 8.375 maf. Similarly, Mexico's Binational Water Scarcity Plan storage requirements set forth within Section IV of Minute 323 would be made as if Lake Mead is below 1,030 feet anytime Lake Mead is below 1,090 feet. And finally, Attachment 2 (discussing the assessment of evaporation and system losses to Lower Basin users) contemplates that such losses would be equitably assessed to all users, including Mexico.

Compliance

The Lower Colorado River Multi-Species Conservation Program provides Endangered Species Act compliance for operations of the Lower Colorado River, including water deliveries and hydropower. The actions contemplated in the preferred alternative will likely necessitate expanded compliance for lower Lake Mead elevations and reduced deliveries to all water users, including reductions to only those volumes necessary to meet public health, safety, and welfare requirements. It is imperative this compliance moves swiftly and in parallel with this SEIS.

Proposed Framework Agreement Alternative

This section introduces an alternative developed by the Authority to meet the stated "purpose" (modifying the operating guidelines to address drought and aridity) and "need" (avoiding critically low elevations) identified in the SEIS. The alternatives demonstrate how the system can effectively and safely operate through more restrictive shortage conditions (at 1,090 feet), equitable sharing of evaporation and system losses, continued DROA actions and additional reductions in use in the Upper Basin. The Authority believes these actions are implementable under this federal action, previous related federal actions and federal law. While the magnitude of water use reduction is striking, it is necessary, achievable, equitable, and effective.

The elements of this proposed alternative are articulated below.

Lower Basin Shortage

Section 2.D.1 of the 2007 Guidelines shall be stricken and replaced with the following:

Deliveries to Lower Division States during Shortage Conditions shall be implemented in the following manner:

a. The Lake Mead Protection Elevation for the year shall be set at the live storage volume in Lake Mead that is equivalent to the sum of the quantity of water stored as ICS (including any applicable ICS, DCP ICS, and Mexican Water Reserve) and 18 months of public health, safety, and welfare requirements for the Lower Basin and Mexico's municipal water users.
b. In years when Lake Mead content is projected to be at or below elevation 1,090 feet but above the Lake Mead Protection Elevation, a quantity of up to 7.0 maf shall be apportioned for use in the Lower Division States, of which 2.32 maf shall be apportioned for use in Arizona, 280,000 af shall be apportioned for use in Nevada, and 4.4 maf shall be apportioned for use in California; provided, however, that if 7.0 maf cannot be apportioned to the Lower Division States without reducing Lake Mead's elevation to something below the Lake Mead Protection Elevation, then such amounts shall be reduced. This apportionment shall be dynamic throughout the calendar year and apportionments may be further reduced, but not increased from the initial determination made by the Secretary. Water deliveries for public health, safety, and welfare shall be prioritized.

Lower Basin Drought Contingency Plan Contributions

Lower Basin Drought Contingency Plan Contributions shall be made each year Lake Mead is at or below elevation 1,090 feet as if Lake Mead is at or below elevation 1,030 feet.

The corresponding reductions from this modification and the previous modifications for Lower Basin Shortages shall result in the reductions summarized in the table below.

Projected January 1 Lake Mead Elevation (feet msl)	**2007 Interim Shortage Guidelines Shortages**		**DCP Contributions**			**Combined Volumes** (2007 Interim Guidelines Shortages & DCP Contributions)			
	Arizona	**Nevada**	**Arizona**	**Nevada**	**California**	**Arizona**	**Nevada**	**California**	**Lower Division States Total**
	(thousand acre-feet)								
At or below 1,090 and above Lake Mead Protection Elevation	480	20	240	10	350	720	30	350	1,100

ICS Deliveries

Under Section 3.C, modifications should be made under extremely limited circumstances such that ICS that is stored in Lake Mead is available when Lake Mead is below elevation 1,025 feet to the contractor that stored the water if sufficient protections can be provided to satisfy the public health, safety, and welfare needs of municipal water users.

Evaporation and Storage Losses or Equivalent Equitable Reductions

Annually, the Secretary shall assess 1.543 maf of system losses in a manner that ensures water apportioned for use does not exceed the volume listed in modified section 2.D.1 above (including applicable DCP contributions) minus 1.543 maf per year. One equitable proposal is to use the methodology described in **Attachment 2** to this letter, noting that reductions are intended to apply to each individual water user based upon the user's recent history of consumptive use. Because these losses occur without regard to priority, they should NOT be implemented in a manner that applies reductions exclusively to junior priority users.

Modified releases from Glen Canyon Dam

Operational experience has shown the balancing releases identified in Section 6 of the 2007 Guidelines are not practical or achievable in the face of changing hydrologic conditions and the desired reliability of water releases from Glen Canyon Dam. This alternative proposes that the following changes be made to Section 6, including within the table entitled Lake Powell Operational Tiers.

- Section 6.B.1 and 6.B.4 shall be stricken
- Section 6.B.2 balancing releases shall be not more than 10.0 maf and not less than 8.0 maf
- Replace Section 6.C.1 with the following: In Water Years when the projected January 1 Lake Powell elevation is below 3,575 feet and at or above 3,550 feet, the Secretary shall release 7.48 maf from Lake Powell in the Water Year unless Lake Powell is projected to drop below elevation 3,510 feet in that Water Year. If Lake Powell is projected to drop below elevation 3,510 feet in that Water Year, releases shall be reduced to protect elevation 3,510 feet.
- Change Section 6.D title to Lower Elevation Release Tier
- Replace Section 6.D.1 with the following: In Water Years when the projected January 1 Lake Powell elevation is below 3,550 feet, the Secretary shall release 7.0 maf from Lake Powell unless Lake Powell is projected to drop below elevation 3,510 feet in that Water Year. If Lake Powell is

projected to drop below elevation 3,510 feet in that Water Year, releases shall be reduced to protect elevation 3,510 feet.

Upper Basin Actions

In addition to those actions previously articulated in the Upper Basin DCP and Five Point Plan, whenever Lake Powell is projected to begin a calendar year at or below elevation 3,550 feet, the following additional actions should occur: 1) the Upper Basin states shall collectively reduce water use by 500,000 af; and 2) the Secretary shall use emergency authorizations within applicable DROA Agreements and associated Records of Decision to ensure a 500,000 acre-foot release is made to Lake Powell to the extent sufficient water exists in upstream storage.

In conclusion, Nevada strongly desires that this alternative be further refined through cooperation with the other Colorado River Basins States and river stakeholders. However, given the lack of progress achieving consensus on these issues previously, we felt it prudent to introduce the concepts and framework that are necessary to stabilize reservoir elevations and provide increased water supply reliability to the desert southwest. Nevada continues to stand ready to work with any of our partners to refine this alternative as quickly as possible for immediate implementation.

Sincerely,

John J. Entsminger
Governor's Representative
State of Nevada
&
General Manager
Southern Nevada Water Authority

Eric P. Witkoski
Executive Director
Colorado River Commission of Nevada

cc: Camille Calimlim Touton, Commissioner, Bureau of Reclamation
David M. Palumbo, Deputy Commissioner-Operations, Bureau of Reclamation
Reclamation 2007 Interim Guidelines SEIS Project Manager, Upper Colorado River Basin Region
via email: CRinterimops@usbr.gov

Attachments

Attachment 1

The Colorado River Commission of Nevada ("CRCNV") is required to protect and safeguard the State of Nevada's allocation of Colorado River water and power resources granted to it by Congress. CRCNV has a significant interest in water matters impacting the Colorado River as well as hydropower resources from the Boulder Canyon Project, the Parker-Davis Generation Project, and the Salt Lake City Area Integrated Projects. The CRCNV provides hydropower from these projects to 23 contractors in southern Nevada including electric utilities (investor owned and public), municipalities, educational institutions, Nevada state agencies, and companies that produce goods and services.

Scope of the Analysis

The scope of the Bureau of Reclamation's ("Reclamation") analysis needs to consider the impact of further reductions in hydropower generation on the regional electric grid. Electricity is not a convenience good. It is a critical element of public health, safety, and welfare that is in short supply. Over the next few years, as demand on the electricity grid increases, energy supplies are expected to tighten even further.

During the past few years, the Western electric grid has demonstrated its vulnerability to energy shortages, particularly during the summer months when it is subject to extreme heat events and natural disasters such as wildfires. The region relies on hydropower resources on the Colorado River to support the reliability of the electric grid. As highlighted by the North American Reliability Corporation (NERC) in its Summer Reliability Assessment study for 2022:

> Energy output from hydro generators throughout most of the Western United States is being affected by widespread drought and below-normal snowpack. Dry hydrological conditions threaten the availability of hydroelectricity for transfers throughout the Western Interconnection. Some assessment areas, including WECC's California-Mexico (CA/MX) and Southwest Reserve Sharing Group (SRSG), depend on substantial electricity imports to meet demand on hot summer evenings and other times when variable energy resource (e.g., wind, solar) output is diminishing. In the event of wide-area extreme heat event, all U.S. assessment areas in the Western Interconnection are at risk of energy emergencies due to the limited supply of electricity available for transfer.

Hydropower resources have recently been called on to stave off energy emergencies like the ones referenced in the WECC report. Between August 14 and August 19 of 2020, Western Area Power Administration ("WAPA") and the Reclamation generated and transmitted additional hydropower energy in response to a heat-related energy emergency in the State of California. This action limited outages and helped stabilize the grid.

Hydropower has also been recently called on to respond to scarcity events exacerbated by regulatory and policy decisions affecting the electric grid's reliability. Under a Federal Energy Regulatory Commission Order, the State of California, during periods of high demand, can intercept electricity generated in the Pacific Northwest that would otherwise be delivered to other states, including Arizona and Nevada, during times when these states are also experiencing high demand for energy. See FERC Order Docket No. ER21-1790. The intercept of power by California that would otherwise have been imported to other States happened as recently as September of 2022, straining power deliveries into Nevada and Arizona. During these shortage events, both Glen Canyon Dam and Hoover Dam were called on to provide as much power as possible to avoid rolling blackouts in the region.

Ideally, the scope of Reclamation's analysis should be broad enough to allow for detailed technical studies to be completed that assess the impact of reduced hydropower resources on the reliability of the electric grid in the Colorado River Basin. The technical scope should focus on hydropower's contribution toward resource adequacy, possible impacts to the transmission grid, and the risk that load will go unserved in the region. Given the short time frame for this SEIS process and the pressing need to implement measures that protect the water and power resources on the river, there may not be sufficient time to conduct such detailed studies. In that case, Reclamation should, at a minimum, consult with a broad range of industry experts and review existing reports, data and information concerning the risk of resource shortages during the next few years. At a minimum, Reclamation should consult with WAPA about its ability to operate the electric grid under a reduced generation scenario as well as WAPA's ability to respond to regional emergencies. Reclamation should also carefully review technical reports and analyses already completed by reliability organizations such as the Western Electric Coordinating Council, grid operators such as the California Independent System Operator (CAISO), electricity suppliers, and other experts in the region.

The drought has already taken a major toll on WAPA's contractors financially, particularly customers that are heavily dependent on hydropower resources. These contractors are not only paying more per MWh for their resources, but they are also having to replace lost hydropower generation with more expensive resources, resulting in substantial annual rate increases. Ideally, the scope of this SEIS should address the financial impact of losing hydropower resources on WAPA's customers including the impact to resource rates and the cost to customers to replace lost hydropower generation with other resources. Once again, given the short time frame for this SEIS process, consultation with WAPA's contractors, particularly those that are heavily reliant on hydropower resources, is warranted.

Operational Considerations

Given the increasing demand for electricity and the need for energy in the region during 2023 and 2024, Reclamation needs to consider protecting the elevations of both Lake Powell and Lake Mead so that a reasonable amount of hydropower generation can be preserved. For every 25 feet further decline in elevation at Lake Mead, it is estimated that approximately 250,000 MWh of energy and 125 MW of capacity will be lost at Hoover Dam. This is in addition to the approximately 2.3 million MWh of energy that Hoover contractors have lost since the start of the drought.

Elevation 1,000 feet in Lake Mead is the minimum elevation for which the wide head turbines at Hoover Dam are rated and it is expected that approximately 1,000 MWs of capacity would remain available at that elevation. Although minimum power pool is believed to be 950 feet, it is important to recognize that we have no operating history at these lower lake elevations and a margin is needed to avoid possible technical difficulties that may arise at lower elevations. Further, at a level of 950 feet, Hoover generating capacity is expected to drop to 30 percent of rated capacity versus 50 percent of rated capacity at an elevation of 1,000 feet. Consequently, the amount of power that Hoover Dam provides and its contribution to Western Grid reliability is significantly reduced at an elevation of 950 feet. The ability to protect these elevations is a critical component of any preferred alternative and should be considered in the SEIS. CRCNV believes the proposed Nevada alternative will perform well for meeting these objectives.

Identification of Relevant Information and Studies

Reliable generation forecasts are important to Reclamation's customers. Utility managers need to have a thorough understanding of the range of generation outcomes (energy and capacity) at varying levels of Lake elevations and releases so that they can plan for different outcomes. During this SEIS, it is recommended that Reclamation model a wide range of operating alternatives and publish the

hydropower generation resulting from those model runs. This will allow utility managers to plan for the future and secure replacement resources if necessary.

As noted above, with the short period allotted for the SEIS and the need to take action sooner rather than later, the CRCNV recommends that Reclamation rely heavily on consultation with experts in the electric industry including WAPA, a cross section of WAPA's customers, particularly those that are heavily dependent on hydropower resources, energy suppliers, and grid operators as well as a review of existing data and information to fully understand the energy supply and demand picture for 2023 and 2024 and weigh the risk of further reductions in hydropower resources.

More detailed technical studies and analysis should be undertaken to inform future decisions. These studies should assess the impact of reduced hydropower resources on the reliability of the electric grid in the Colorado River Basin and focus on hydropower's contribution toward resource adequacy, possible impacts to the transmission grid, possible impacts to market power prices, and the risk that load will go unserved in the region. These studies should be conducted over a longer period and under different supply and demand scenarios. In addition, more analysis needs to be done to quantify the financial impact of losing hydropower generation on WAPA and WAPA's customers. This financial analysis should include future resource rate projections under a wide range of generation outcomes as well as a quantification of replacement costs considering all benefits hydropower provides, including energy, capacity, ancillary services, and renewable benefits.

Attachment 2

SNWA Methodology to Assessing Lower Basin System Losses

In the Lower Basin (LB), system losses occur primarily as open-water evaporation and riparian evapotranspiration (ET). From Lee's Ferry to the Northerly International Boundary (NIB), SNWA estimates these losses to be approximately 1.543 million acre-feet per year. SNWA's objective is to develop an equitable method of assessing these system losses to LB water users that rely on the reservoirs and river system for the storage and transmission of water deliveries. The general approach to estimate system-loss assessments consisted of the following:

1. System losses were estimated for five reaches along the Colorado River from Lee's Ferry to the NIB:

   Reach 1 Lee's Ferry to Hoover Dam
   Reach 2 Hoover Dam to Davis Dam
   Reach 3 Davis Dam to Parker Dam
   Reach 4 Parker Dam to Imperial Dam, and
   Reach 5 Imperial Dam to the NIB

2. For each reach, water user groups were assembled to represent the water users that rely on the reach to store and/or transmit water deliveries and their average annual consumptive uses were estimated. These users would share in the system loss estimated for the reach.

3. For each reach, the estimated system loss was assessed proportionally to each state and corresponding water users based on their fraction of the total water deliveries within the reach.

Reservoir evaporation for lakes Mead, Mojave and Havasu and riparian ET for downstream reaches were estimated based on input data and relationships used in the CRSS model (Version 5 release, January 2022). For Lake Mead, the reservoir elevation-evaporation relationship was used to estimate evaporation at an elevation of 1,100 feet. For lakes Mohave and Havasu, the reservoir evaporation was computed by multiplying the monthly evaporation rates by the monthly target reservoir elevations described in Appendix B of the Interim Guidelines FEIS[7]. Losses between Davis Dam and Parker Dam were computed by summing the input values for the monthly depletions of the "*Phreatophytes*" object. Similarly, losses between Parker and Imperial dams were computed using the "*Native Vegetation*" object, and losses between Imperial Dam and the NIB were computed using the "*Phreatophytes Imperial to NIB*" object. The total system loss for each reach was estimated by summing the reservoir evaporation, if the reach included a reservoir, and the losses by riparian ET.

[7] Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead – Final Environmental Impact Statement, U.S. Bureau of Reclamation, Lower Colorado River Region, Boulder City, NV, November 2007.

To assess system losses, the average annual consumptive use for each water user was computed for the period 2019-2021 using data reported in the USBR Decree Accounting Reports[8]. These values were used to estimate each state's proportion of water use within a given reach. Water user groups were formed by water user and state for each reach. A water user group represents all the water users who rely on a reach to store or transmit deliveries. So, a water user at the bottom of the system would rely on the storage and transmission of all five reaches and would have representation in all five water user groups. The water user groups were subdivided by state and state totals were computed for each reach.

State-assessment fractions were computed by dividing the total state consumptive use by the total consumptive use of the reach. State assessments were then computed by multiplying these fractions by the system loss estimated for the reach. State assessments were proportionally assigned to the individual water users of the corresponding state based on their proportion of the state's consumptive use for the reach.

The following tables represent summary assessments for each state and Mexico and the individual water user assessments for large water users. SNWA is happy to provide more detailed documentation and methodology upon request.

SUMMARY OF ASSESSMENTS BY STATE / MX

State	afy
AZ	401,018
CA	771,486
NV	17,570
MX	352,926
TOTAL	**1,543,000**

SUMMARY OF WATER USER ASSESSMENTS

Reach	State	Major Water Users	afy
1	NV	LVVWD/SNWA - SNWP	15,514
3	AZ	Central Arizona Water Conservation District	190,474
3	CA	The Metropolitan Water District of Southern California	110,464
4	AZ	AZ Colorado River Indian Reservation	45,378
4	AZ	Wellton-Mohawk I.D.D.	51,654
4	AZ	Yuma County Water Users' Association	47,611
4	AZ	Yuma Mesa I.D.D.	28,657
4	CA	Coachella Valley Water District	70,074
4	CA	Imperial Irrigation District	509,508
4	CA	Palo Verde Irrigation District	71,335
5	MX	Mexico	352,926
		Subtotal	***1,493,596***
Reach	**State**	**Remaining Water Users**	**afy**
All	AZ	Other Users in AZ	37,243
All	CA	Other Users in CA	10,105
All	NV	Other Users in NV	2,056
		Subtotal	***49,404***
		TOTAL	**1,543,000**

[1] Major users considered to have losses greater than 10,000 afy

[8] Lower Colorado River Water Accounting and Water Use Report: Arizona, California, and Nevada, Calendar Years 2019-2021, U.S. Bureau of Reclamation, Interior Region 8: Lower Colorado Basin, Boulder City, NV.

Central Arizona Water Conservation District
23636 North Seventh Street
Phoenix, Arizona 85024

Southern Nevada Water Authority
100 N. City Pkwy, Suite 700
Las Vegas, Nevada 89106

The Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, California 90012-2944

December 20, 2022

Reclamation 2007 Interim Guidelines SEIS Project Manager
Upper Colorado River Basin Region
125 South State Street, Suite 8100
Salt Lake City, Utah 84138
CRinterimops@usbr.gov

Dear Ms. Johnson,

The Southern Nevada Water Authority (SNWA), Central Arizona Water Conservation District (CAWCD) and The Metropolitan Water District of Southern California (Metropolitan)[1] appreciate the opportunity to comment on the Notice of Intent to Prepare a Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (NOI). 87 FR 69043 (November 17, 2022).[2] As noted in the NOI, if the low run-off conditions into Lake Powell and Lake Mead continue the U.S. Bureau of Reclamation's (Reclamation) ability to protect dam infrastructure, make full water deliveries and generate hydropower could be significantly impacted and result in the need to operate Glen Canyon and/or Hoover Dam beyond the scope of the 2007 Interim Guidelines Record of Decision. Any modifications to reservoir operations should prioritize the integrity and operability of dam infrastructure and related facilities, ensure sufficient water for public health and safety, protect Intentionally Created Surplus created under the 2007 Interim Guidelines, and equitably reduce deliveries to all users of Colorado River water such that system storage is not further depleted.

SNWA, CAWCD and Metropolitan's Interests in Operations of Lake Powell and Lake Mead

Collectively SNWA, CAWCD and Metropolitan provide water to 27 million residents in the Lower Basin. Each agency takes delivery of water from Lake Mead pursuant to contracts with Secretary of the Department of Interior. The Colorado River is a significant or exclusive source of water for our agencies and as such, operations of Lake Powell and Lake Mead are directly relevant to our ability to provide water to our service areas.

[1] SNWA, CAWCD and Metropolitan have also submitted individual comment letters that include additional agency-specific details and comments.
[2] These comments are not intended to be a comprehensive alternative. SNWA, CAWCD and Metropolitan may make additional comments and/or offer alternatives.

SNWA is a political subdivision of the State of Nevada and a joint-powers organization created by a cooperative agreement pursuant to NRS 277.080 to 277.180. SNWA provides Colorado River water to its purveyor-member agencies throughout southern Nevada. Colorado River water comprises nearly 90 percent of these water supplies, which serve the needs of the Las Vegas area's 2.3 million residents and more than 40 million tourists each year. SNWA cooperates with its member agencies by providing water treatment, wholesale water delivery, and overseeing conservation-program implementation.

CAWCD is a political subdivision of the State of Arizona, established pursuant to Arizona Revised Statutes § 48-3701 et seq., which operates the Central Arizona Project (CAP) pursuant to various contracts and agreements with Reclamation. The CAP is a 336-mile long system of aqueducts, tunnels, pumping plants and pipelines that delivers water to over 5 million people in central and southern Arizona.

After being formed in 1928 by election and an act of the California legislature, Metropolitan's first project was to build the Colorado River Aqueduct (CRA). Metropolitan continues to bring Colorado River water into Southern California through the CRA. The Colorado River has been Metropolitan's most secure source of imported water since the district was formed. Over the decades, Metropolitan has worked to develop other sources of supply including the State Water Project and local resources projects, but the Colorado River continues to be a vital source of water for Metropolitan's 5,200 square mile service area.

Since the 2007 Interim Guidelines were adopted, SNWA, CAWCD and Metropolitan have been working individually and in partnership to adapt to the stresses on the Colorado River system resulting from drought and climate change. During this period, when our service areas have experienced large growth in population, our water use has actually been declining. For over 20 years, SNWA has been a leader in conserving Colorado River water supply and planning for a future with less water. For example, by investing more than $288,000,000 in conservation programs, Southern Nevada has reduced its consumptive use of Colorado River water by roughly 84,000 acre-feet per year since 2002 – well over a quarter of Nevada's entire apportionment - even as its population has increased by more than 750,000 people. CAWCD has been taking proactive actions to slow the decline of Lake Mead since 2008. CAWCD has conserved over 2 million acre-feet in Lake Mead in collaboration with CAWCD water users. Moreover, CAWCD has also dedicated nearly $47 million in the large number of projects that have been implemented in Arizona to achieve an additional 600,000 acre-feet of storage in Lake Mead. In Metropolitan's service area, water use per person has declined about 40% since the peak in 1990. Metropolitan has invested hundreds of millions of dollars in conservation in the Metropolitan service area, including for turf replacement, high efficiency toilets and recycled water.

In recent years SNWA, CAWCD and Metropolitan have worked together to conserve Colorado River water and reduce the risk of Lake Mead declining to critical elevations. For example, our agencies have participated in the 2014 MOU, the System Conservation Agreement, the Binational Intentionally Created Surplus Agreement, the 500+ Plan and the 2019 Drought Contingency Plan. Through all of these efforts, the Bureau of Reclamation and Interior Department have been our partners, and our agencies are committed to continuing to partner in these next steps. In addition to these collective efforts, one of the primary ways that SNWA, CAWCD and Metropolitan worked to conserve water and support Lake Mead elevations has

been through creation of Intentionally Created Surplus (ICS). Our agencies have invested millions of dollars in conservation projects to create ICS to raise the elevation of Lake Mead and to be available as an additional source of supply when needed. In spite of all of these efforts, Lake Mead is close to reaching critical elevations and forecast to continue to decline. SNWA, CAWCD and Metropolitan ask that Reclamation work with our agencies to help us continue to assure a reliable source of water for the 27 million residents who live in our service areas.

Development and Evaluation of Alternatives

The NOI anticipates three primary alternatives will be considered. The No Action Alternative, Reservoir Operations Modification Alternative to be developed by Reclamation as a set of actions and measures adopted pursuant to Secretarial authority under applicable federal law, and the Framework Agreement Alternative. The Framework Agreement Alternative would be a consensus-based set of actions that builds on the existing framework for Colorado River Operations, including commitments included in the DCP. The undersigned agencies support the development of the Framework Agreement Alternative. If successful, a consensus-based alternative would build on the approach the Colorado River Basin States took in developing the alternative that became the basis for the 2007 Interim Guidelines Record of Decision and more recently when the Basin States, Tribes and Section 5 Contractors worked together to develop the 2019 Drought Contingency Plan.

This NOI comes only three years after SNWA, CAWCD and Metropolitan acted with Reclamation and the Colorado River Basin States to reduce the risk of Lake Powell and Lake Mead declining to critically low elevations through the term of the 2007 Interim Guidelines by adopting the DCP. Reclamation, the Basin States, Tribes and Section 5 Contractors developed the DCP to protect Lake Powell and Lake Mead from declining to critically low elevations through the interim period. Due to the very low runoff during the past three years, Lake Powell and Lake Mead are declining to critical elevations. If conditions worsen, Reclamation may need to prioritize implementation of near-term actions to stabilize the decline in reservoir storage and prevent system collapse.

In analyzing the alternatives to meet this purpose and need, the preferred alternative should:

i. Provide for Public Health, Safety, and Welfare Storage and Deliveries

Given the historically low elevations of Lake Powell and Lake Mead and the risk of these reservoirs declining below power pool identified by Reclamation's recent modeling, and the potential risk this presents to public health, safety, and welfare, the preferred alternative should protect sufficient storage in Lake Mead that will provide deliveries to meet public health, safety, and welfare needs. As noted in the NOI:

> [T]he Department has concluded that immediate development of additional operational alternatives and measures for Lake Powell and Lake Mead are necessary to ensure continued "operations that are prudent or necessary for safety of dams, public health and safety, other emergency situations ... 2007 Interim Guidelines at Section 7.D." 87 FR 69044

The preferred alternative needs to assure that operations of the reservoirs provide sufficient water to meet public health, safety and welfare needs.

ii. Protect Stored Intentionally Created Surplus

Any modifications to the 2007 Interim Guidelines must protect the ICS currently stored in Lake Mead. SNWA, CAWCD and Metropolitan have spent years and invested millions of dollars to intentionally conserve water that has helped to prop up Lake Mead elevations. This storage must be preserved for the benefit of agencies funding or implementing ICS creation and to Contractors to whom funding agencies have directed credit in accordance with Section 3.B.8 of the 2007 Guidelines and must not be delivered to any other user.

iii. Reduced Water Deliveries to Protect Infrastructure

If reductions in water deliveries become necessary to protect dam infrastructure at Glen Canyon Dam or Hoover Dam, those reductions should be imposed equitably on all users of Colorado River water such that system storage is not further depleted.

iv. Apply Through the Interim Period

Because the risk of low runoff conditions and low reservoir conditions may extend past the 2023 and 2024 operations, revisions to reservoir operations made as part of this administrative process should apply through end of the term of the 2007 Interim Guidelines.

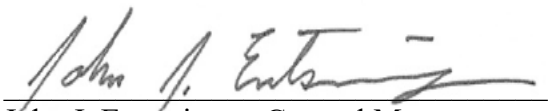
Additional Efforts

In addition to the potential modifications to the 2007 Interim Guidelines described in the NOI, our agencies believe that it will be essential for the U.S. and Mexico sections of IBWC to work together to have Mexico share in reduced deliveries in parity with domestic users in the United States, similarly to how shortages were shared in Minutes 319 and 323. We also ask Reclamation to update and apply Part 417 reasonable and beneficial use determinations to ensure that water delivered is not being wasted as soon as possible.

Our agencies look forward to working with Reclamation during the preparation of the supplemental environmental impact statement and related efforts to protect the Colorado River system reservoirs.

Reclamation's continued partnership with our agencies is essential to our success.

Thank you,



John J. Entsminger, General Manager
Southern Nevada Water Authority

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MARK GORDON
GOVERNOR

BRANDON GEBHART, P.E.
STATE ENGINEER

December 20, 2022

Genevieve Johnson
Reclamation 2007 Interim Guidelines SEIS Project Manager
Upper Colorado Basin Region,
125 South State Street, Suite 8100,
Salt Lake City, Utah 84138
VIA EMAIL - CRinterimops@usbr.gov.

Re: Notice of Intent To Prepare a Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead

Dear Ms. Johnson,

The Wyoming State Engineer, Wyoming's Colorado River Governor's Representative, respectfully submits the following comments in response to the Notice of Intent To Prepare a Supplemental Environmental Impact Statement (SEIS) for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead, Fed. Reg. Vol. 87, No. 221, dated November 17, 2022 ("NOI"). We appreciate your consideration of Wyoming's input and comments and request that they be incorporated into the preparation of the revised reservoir operating guidelines SEIS under the National Environmental Policy Act ("NEPA") process.

According to the NOI, the purpose of the SEIS is to supplement the Environmental Impact Statement completed for the 2007 Interim Guidelines in order to modify operating guidelines for the operation of Glen Canyon and Hoover Dams to address historic drought and low runoff conditions in the Colorado River Basin. Wyoming understands that Reclamation is employing a scoping process for the SEIS to potentially revise reservoir operating guidelines established in the Record of Decision for the 2007 Interim Guidelines for the operation of Glen Canyon and Hoover Dams in 2023 and 2024 operating years, and potentially subsequent years if necessary and appropriate.

Wyoming and the other six Colorado River Basin States have a unique interest in the water supplies of their states, including supplies from the Colorado River and its tributaries. As parties and beneficiaries to the interstate compacts, laws, and Supreme Court decrees that govern the management of the Colorado River, the Basin States have a specific interest in river management to protect the economic, health, and welfare interests of their residents who rely on the river. Recognizing the unique status of the States, the Secretary must meet her legal obligation to consult with the Governors' Representatives and collaborate on the operations being considered in the SEIS. Further, the Secretary is vested with the

responsibility of managing the mainstream waters of the lower Colorado River pursuant to federal law. This responsibility must be carried out consistent with applicable federal law. In contrast, Wyoming has the exclusive right and power to regulate within its boundaries the appropriation, use, and control of water, the consumptive use of which is apportioned and available to Wyoming from the Colorado River System.

Wyoming believes it is beneficial to pursue limited additional actions beyond those contemplated in the 2007 Interim Guidelines to reduce the likelihood of reaching critical elevation levels in Lake Powell and Lake Mead through 2026. The 2007 Interim Guidelines and the 2019 Drought Contingency Plans (DCPs) were based on the hydrologic data available and reservoir storage conditions at that time. Since then, conditions in the Colorado River Basin have continued to deteriorate, and have highlighted risks and vulnerabilities in the system. The hydrology of the past 23 years, driven by higher temperatures and impacts of climate change, is the driest 23-years in the period of record, and one of the driest periods in the last 1,200 years. Additionally, water depletions downstream of Lee Ferry have exceeded the available water supply and drained available storage. Dry hydrology, Lower Basin depletions which exceed available supply, and exhausted storage in Lake Powell and downstream all contribute to the need for the proposed actions.

The NOI identifies only three sections of the 2007 Interim Guidelines for potential limited revisions. Those sections and Wyoming's related comments are as follows:

- Revising Section 2.D ("'Shortage Conditions''), including potential modifications to Sections 2.D.1.b and 2.D.1.c to decrease the quantity of water that shall be apportioned for consumptive use in the Lower Division States (Arizona, California, and Nevada). Any modifications to these sections would be based on current and anticipated reservoir and hydrologic conditions in the Colorado River Basin, including any potential modifications to Glen Canyon Dam operations pursuant to this SEIS.

  Wyoming supports decreasing the quantity of water to be apportioned for consumptive use in the Lower Division States in light of the dry hydrology, depleted storage, and decreased Lake Powell releases resulting from low runoff conditions accelerated by climate change. Wyoming generally asserts that balancing consumptive uses and depletions with available supply is the foundation for sustainable management. Wyoming consumptive uses and depletions are already limited by available supply. To achieve this result in the Lower Basin, the Secretary must begin to account for and assess actual depletions, evaporation, seepage, and other system losses. This could be accomplished by decreasing the quantity of water apportioned to the Lower Division States at Lake Mead elevations which are higher than those identified in Sections 2.D.1.b and 2.D.1.c, or accomplished by any other available method. The quantity of water apportioned to the Lower Division States could be reduced by approximately 1.5 million acre-feet to account for evaporation, seepage, and other system losses at the highest tier identified in the Lower Basin DCP. Additional reductions should be made as Lake Mead elevations and inflows decline.

- Revising Section 7.C (''Mid-Year Review") to allow for potential determinations in a mid-year review that would allow for reduced deliveries from Lake Mead pursuant to Section 2 of the 2007 Interim Guidelines.

Wyoming supports determinations in a mid-year review that would allow for reduced deliveries from Lake Mead pursuant to Section 2 of the 2007 Interim Guidelines. Allowing for such a determination in April, when the water supply for a given year is better known, improves overall water management and will help balance consumptive uses and depletions with available supply. Currently, the 2007 Interim Guidelines only allow for increasing deliveries from Lake Mead after a mid-year review which fails to recognize the changing conditions in the Colorado River Basin.

- Revising Sections 6.C ('Mid-Elevation Release Tier'') and 6.D (''Lower Elevation Balancing Tier'') to modify and/or reduce the quantity of water released from Glen Canyon Dam. Any modifications to these sections would be based on current and anticipated reservoir and hydrologic conditions in the Colorado River Basin, including any potential modifications to Hoover Dam operations pursuant to this SEIS.

  Wyoming acknowledges that reduced releases from Glen Canyon Dam may be needed in response to prolonged drought and low runoff conditions accelerated by climate change. The Secretary has a legal obligation to operate Glen Canyon Dam in a manner that promotes the Upper Basin's ability to continue compliance with the Colorado River Compact. Any Lake Powell releases must account for those considerations found in Section 602(a) of the 1968 Basin Project Act as informed by current conditions resulting from dry hydrology and climate change impacts. Further, balancing should be removed from the Lower Elevation Balancing Tier because, among other things, the critical period of record is now over 23 years long and any balancing at lower elevations under current conditions jeopardizes future Lake Powell storage levels and releases. Reclamation should also account for seepage in addition to intentional releases to calculate the "release volume" from Glen Canyon Dam.

Any revisions to the 2007 Interim Guidelines which do not reflect an appropriate consensus must be limited to the Secretary's authority only. Importantly for the long-term stable management of the Colorado River, the 2007 Interim Guidelines activated a legal agreement among the Basin States. Through that agreement, the Basin States intended to, among other things, avoid circumstances which could otherwise form the basis for claims or controversies over interpretation or implementation of the Colorado River Compact and other applicable provisions of the Law of the River. The Basin States agreed to mandatory consultation provisions to address future controversies through consultation and negotiation, as a requirement, before resorting to litigation. With respect to the various interests, positions and views of each of the seven Basin States, that provision added an important new element to the modern evolution of the legal framework for the prudent management of the Colorado River. Building appropriate consensus remains preferable to protracted conflict and uncertain outcomes from litigation. Any revised reservoir operations which do not reflect an appropriate consensus must be limited to actions within the Secretary's authority only.

In any consensus framework agreement or other alternative, the 1922 Colorado River Compact, the 1948 Upper Colorado River Basin Compact, and the 1944 Treaty with Mexico must be the foundation for any operating guidelines. They provide durability, certainty, and stability in managing the Colorado River System and infrastructure. They also provide sufficient flexibility to address current and future risks. The fundamental basis for the 2007 Interim Guidelines is that the foundational considerations were honored and achieved through the development of a consensus seven-state recommendation that was incorporated into the adopted preferred alternative. Wyoming remains committed to working with

the other Basin States, Native American Tribes (Tribes), water users, and other stakeholders to achieve appropriate consensus.

Revised operating guidelines need to provide certainty and address current risks and vulnerabilities in the short term. The SEIS must consider the immediate, and reasonably possible, future hydrologies that the Basin could face, reflecting current hydrologic data and projections, depleted reservoir storage conditions, and the experience gained from the 2007 Interim Guidelines and the DCPs. Any actions should also be transparent and provide an accurate accounting of all Colorado River system depletions and available supply.

Any revised reservoir operating guidelines should include or at least not frustrate the advancement of meaningful water conservation programs in both the Upper and Lower Basins and across all water use sectors. Water conservation programs should focus on long-term water conservation improvements that will result in long-term system conservation.

The geographic scope of the SEIS must remain consistent with the geographic scope of the 2007 Interim Guidelines. The geographic scope begins with Lake Powell and extends downstream along the Colorado River floodplain to the Southerly International Boundary with Mexico. In addition to the potential impacts that may occur within the river corridor, the alternatives may also affect the water supply that is available to specific Colorado River water users in the Lower Basin. The operation of any reservoirs upstream of Lake Powell, including those in Wyoming, are outside the scope of the SEIS.

Any revised reservoir operating guidelines must consider and promote the ability to generate hydropower at Glen Canyon Dam. If Lake Powell reaches critical elevations, it could lose the ability to generate hydropower or even release sufficient water to comply with the 1922 Compact. Losing the ability to generate hydropower could interrupt electrical service to power customers, including municipalities, cooperatives, irrigation districts, federal and state agencies and Tribes, and the continued functioning of the western Interconnected Bulk Electric System that extends from Mexico to Canada and from California to Kansas and Nebraska. In addition to losing a large clean power supply and soft start capability for western grid that allows power to be safely restored after blackouts, revenues from hydropower fund many important purposes. Further, funding provided by hydropower generation not only provides these direct benefits, but also helps provide the Upper Basin the ability to develop and use it 1922 Compact apportionment. However, the impounding and use of water for the generation of power is subservient to other beneficial consumptive uses, and cannot preclude or impair the appropriation of water for those other uses pursuant to applicable State law.

In considering the reservoir operating guidelines contemplated in the SEIS, Reclamation must coordinate with the International Boundary and Water Commission and representatives of Mexico regarding potential cooperative actions in the Colorado River Basin pursuant to the 1944 United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande. These efforts should promote and facilitate Mexico's ability to undertake water savings or reductions in parity with those being contemplated in the United States.

In addition to these comments, Wyoming has also joined the other Upper Division States in providing comments to the SEIS through the Upper Colorado River Commission. Wyoming fully incorporates those comments here as well. Additionally, Wyoming has committed to a process with the other Basin

States to develop a consensus Framework Agreement Alternative. As part of that process, Wyoming has committed to considering a Proposed Framework Agreement Alternative put forward by the Southern Nevada Water Authority as part of the State of Nevada's comments to the SEIS. Wyoming does not endorse or support any element of SNWA's proposed alternative, but instead opposes some of the specific elements of that proposal. However, Wyoming intends to consider the proposal in an effort to reach an appropriate consensus framework agreement.

By providing these comments, Wyoming does not waive any rights, including any claims or defenses, it may have or as may accrue under any existing federal or state law or administrative rule, regulation or guideline, including without limitation the Colorado River Compact, the Boulder Canyon Project Act, the Upper Colorado River Basin Compact, the 1944 Water Treaty, the Consolidated Decree of the Supreme Court in Arizona v. California, the Colorado River Storage Project Act, the Colorado River Basin Project Act and any other applicable provision of federal law, rule, regulation, or guideline.

Wyoming thanks you for the opportunity to provide comments on the development of the SEIS. We anticipate providing additional comments during the SEIS process as well. We look forward to continuing our partnership with you, the Other Basin States, Mexico, Basin Tribes, water users, and stakeholders, as we move forward in protecting and managing this critical resource.

Sincerely,

Brandon Gebhart, P.E.
Wyoming State Engineer