



— BUREAU OF —
RECLAMATION

Current Conditions and Projected Operations in the Lower Colorado River Basin

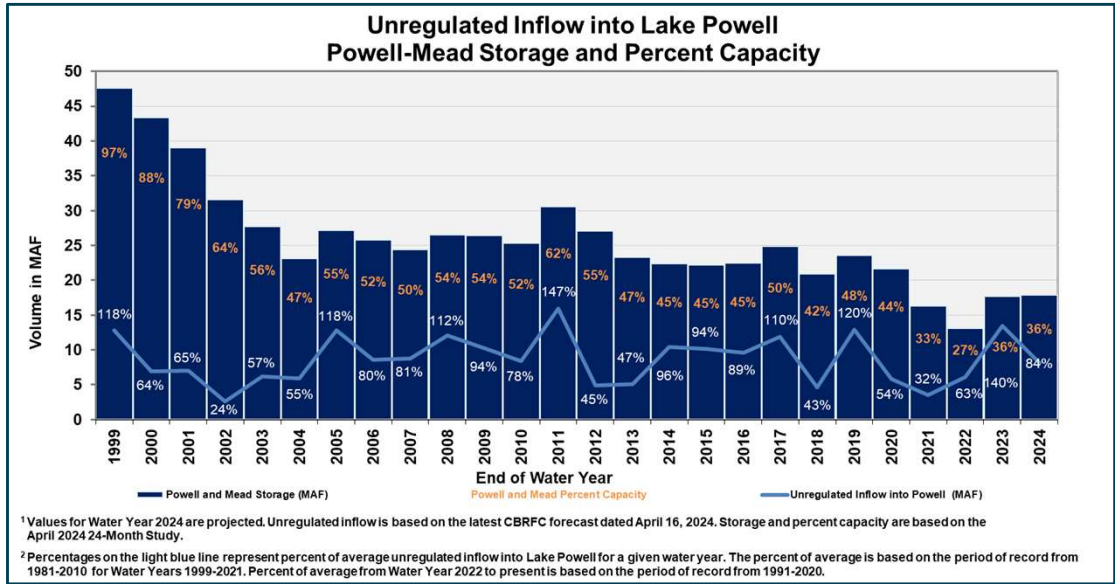
San Diego IRWM Regional Advisory Committee Meeting
May 1, 2024

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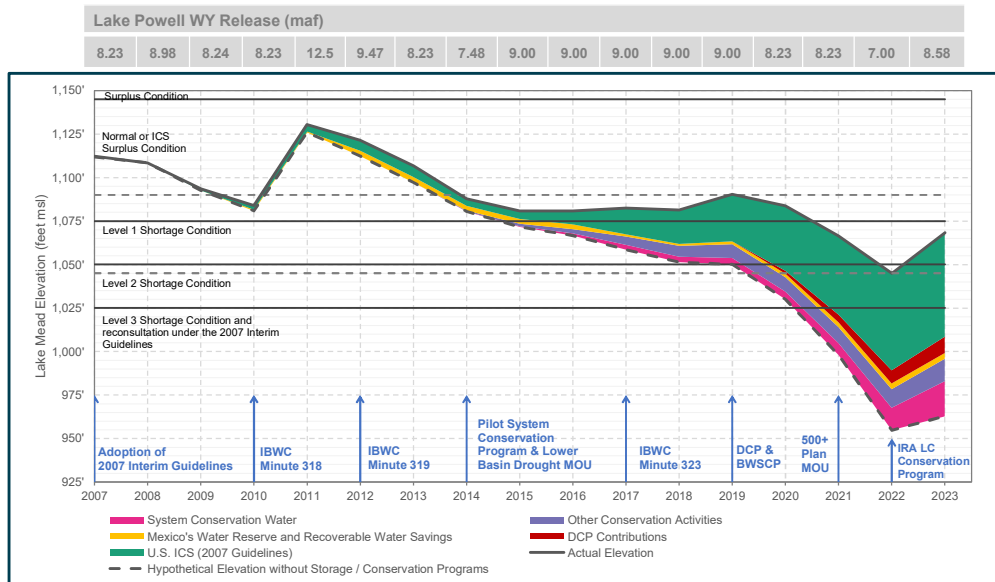
State of the System (Water Years 1999-2024)^{1,2}



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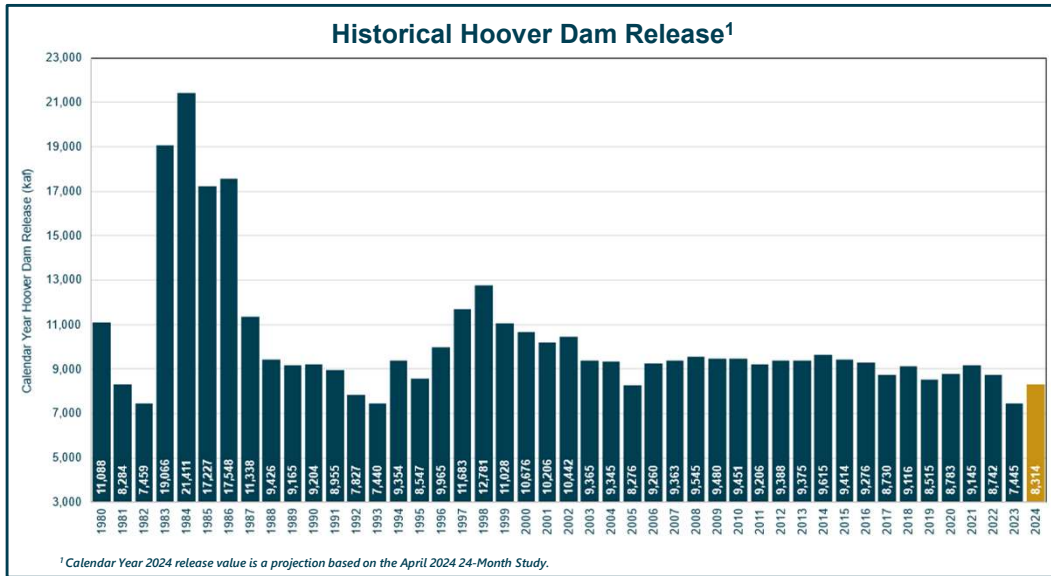
Lake Mead Storage and Conservation*



4

4

Historical Hoover Dam Release: 1980-2024



5



5

Executed System Conservation Agreements As modeled in the April 2024 Most Probable 24-Month Study¹

Conservation Activity (volumes in AF)	2023²	2024	2025	2026	Total
CAP System Conservation Agreements	141,400	129,400	128,800	2,400	402,000
Fort McDowell Yavapai Nation System Conservation	13,933	13,933	13,933	0	41,799
San Carlos Apache Tribe System Conservation	23,804	0	0	0	23,804
Coachella Groundwater System Conservation	35,000	35,000	35,000	0	105,000
Coachella Ag Conservation System Conservation	0	0	10,000	10,000	20,000
GRIC System Conservation	91,319	125,000	125,000	0	341,319
Cibola Valley IDD System Conservation	1,682	2,328	2,328	0	6,338
GM Gabrych System Conservation	3,240	3,240	3,240	0	9,720
Cathcart Farms System Conservation	57	61	61	0	178
YMIDD System Conservation	21,556	21,795	21,795	0	65,146
MVIDD System Conservation	12,819	13,441	13,441	0	39,701
Hopi Tribe System Conservation	2,679	3,059	3,059	0	8,797
IID System Conservation	106,111	0	0	0	106,111
Quechan Indian Tribe-MWD System Conservation	13,000	13,000	13,000	0	39,000
PVID-MWD System Conservation	77,018	117,021	117,021	79,830	390,890
Pilot System Conservation Program	201	545	545	545	1,836
242 Wellfield Additional Pumping Agreement	7,007	25,000	25,000	25,000	82,007
Annual Total (Non-Shortage/DCP)	550,826	502,823	512,223	117,775	1,683,646
Cumulative Total	550,826	1,053,649	1,565,871	1,683,646	

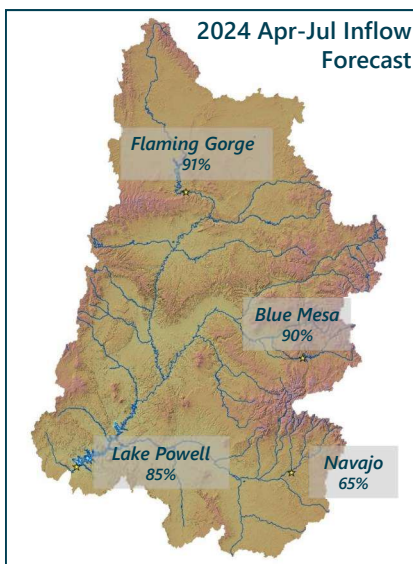
¹ Volumes reflect executed agreements and/or current operational projections and are subject to change. Additional conservation activities are being considered. After new agreements are finalized and executed, these additional activities will be included in Reclamation's operational modeling.
² CY 2023 volumes are provisional and subject to change.

6



6

CBRFC Unregulated Inflow Forecast Dated April 16, 2024



Powell Unregulated Inflow Forecast		
Month/Period	Inflow (kaf)	Percent of Average ¹
Mar 2024 <i>(Observed)</i>	455	76
Apr 2024	700	78
May 2024	1,800	87
Jun 2024	2,200	90
Apr-Jul 2024	5,400	85
WY 2024	8,091	84

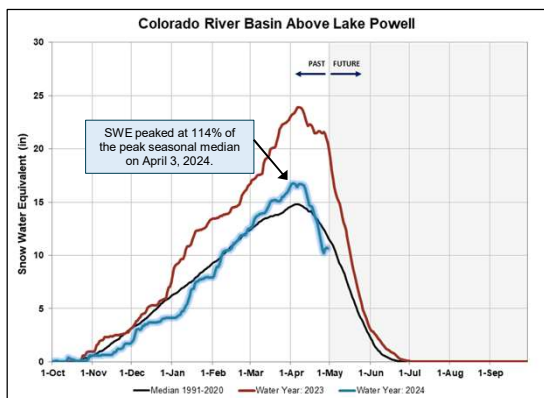
¹Statistics are based on the 30-year period from 1991-2020.

7

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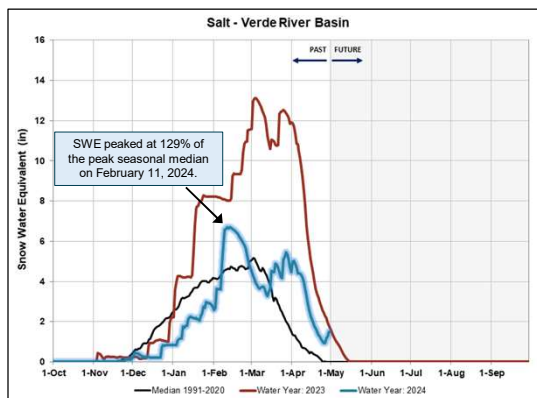
Water Year 2024 Precipitation & Snowpack¹ as of April 29, 2024

Upper Colorado River Basin



Precipitation - 100%
Basin Snowpack - 89%

Salt - Verde River Basin



Precipitation - 99%
Basin Snowpack - NA%

¹Percent of normal precipitation is based on an arithmetic mean, or average; percent of normal snowpack is based on the median value for a given date. Water Year statistics are based on the 30-year period from 1991-2020.



8

8

Lower Basin Side Inflows – WY/CY 2024^{1,2} Intervening Flow from Glen Canyon to Hoover Dam

Month in WY/CY 2024		5-Year Average Intervening Flow (kaf)	Observed Intervening Flow (kaf)	Observed Intervening Flow (% of Average)	Difference From 5-Year Average (kaf)
Observed	October 2023	61	31	51%	-30
	November 2023	57	41	71%	-17
	December 2023	76	74	96%	-3
	January 2024	81	68	84%	-13
	February 2024	69	87	128%	19
	March 2024	129	59	46%	-70
Projected	April 2024	101			
	May 2024	69			
	June 2024	28			
	July 2024	48			
	August 2024	96			
	September 2024	81			
	October 2024	61			
	November 2024	57			
December 2024		76			
WY 2024 Totals		896	782	87%	-114
CY 2024 Totals		896	832	93%	-64

¹ Values were computed with the LC's gain-loss model for the most recent 24-month study.
² Percents of average are based on the 5-year mean from 2019-2023.



9

9

Lake Powell & Lake Mead Operational Diagrams 2024 Operating Tier/Condition¹

Lake Powell			Lake Mead		
Elevation (feet)	Operation According to the Interim Guidelines	Live Storage (maf) ²	Elevation (feet)	Operation According to the Interim Guidelines	Live Storage (maf) ²
3,700	Equalization Tier Equalize, avoid spills, or release 8.23 maf	24.3	1,220	Flood Control Surplus or Quantified Surplus Condition Deliver > 7.5 maf	25.9
3,636-3,666 (2008-2026)		15.5-19.3 (2008-2026)	1,200 (approx.) ²		Domestic Surplus or ICS Surplus Condition Deliver > 7.5 maf
	Upper Elevation Balancing Tier ² Release 8.23 maf; if Lake Mead < 1,075 feet, balance contents with a min/max release of 7.0 and 9.0 maf		1,145	Normal or ICS Surplus Condition Deliver ≥ 7.5 maf	15.9
3,575		9.5	1,075		Shortage Condition Deliver 7.167 ¹ maf
	Mid-Elevation Release Tier Release 7.48 maf; if Lake Mead < 1,025 feet, release 8.23 maf		1,050	Shortage Condition Deliver 7.083 ¹ maf	
3,525		5.9	1,025		Shortage Condition Deliver 7.0 ¹ maf Further measures may be undertaken ¹
3,490	Lower Elevation Balancing Tier Balance contents with a min/max release of 7.0 and 9.5 maf	4.0	1,000		
3,370			0	895	

10

¹The blue shaded region indicates the operating tier for the current water/calendar year for Lake Powell and Lake Mead, respectively



10

2007 Interim Guidelines, Minute 323, Lower Basin Drought Contingency Plan, and Binational Water Scarcity Contingency Plan Total Volumes (kaf)

Lake Mead Elevation (feet ms)	2007 Interim Guidelines Shortages		Minute 323 Delivery Reductions	Total Combined Reductions	DCP Water Savings Contributions			Binational Water Scarcity Contingency Plan Savings	Combined Volumes by Country US: (2007 Interim Guidelines Shortages + DCP Contributions) Mexico: (Minute 323 Delivery Reductions + Binational Water Scarcity Contingency Plan Savings)					Total Combined Volumes
	AZ	NV	Mexico	Lower Basin States + Mexico	AZ	NV	CA	Mexico	AZ Total	NV Total	CA Total	Lower Basin States Total	Mexico Total	Lower Basin States + Mexico
1,090 - 1,075	0	0	0	0	192	8	0	41	192	8	0	200	41	241
1,075 - 1,050	320	13	50	383	192	8	0	30	512	21	0	533	80	613
1,050 - 1,045	400	17	70	487	192	8	0	34	592	25	0	617	104	721
1,045 - 1,040	400	17	70	487	240	10	200	76	640	27	200	867	146	1,013
1,040 - 1,035	400	17	70	487	240	10	250	84	640	27	250	917	154	1,071
1,035 - 1,030	400	17	70	487	240	10	300	92	640	27	300	967	162	1,129
1,030 - 1,025	400	17	70	487	240	10	350	101	640	27	350	1,017	171	1,188
<1,025	480	20	125	625	240	10	350	150	720	30	350	1,100	275	1,375

2024 Reductions + Contributions →

← 2024 Reductions + Contributions

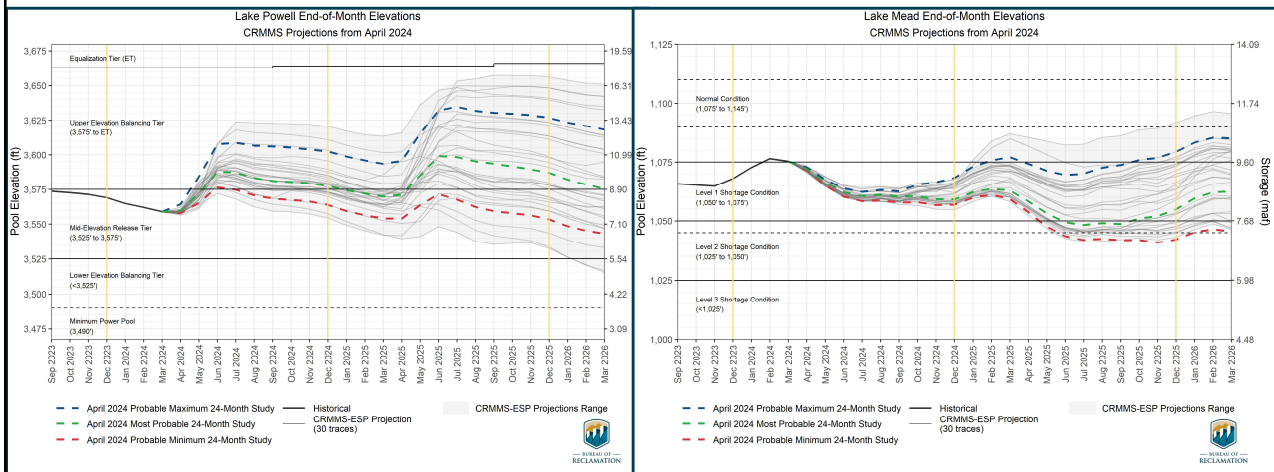
The Secretary of the Interior will take affirmative actions to implement programs designed to create or conserve 100,000 acre-ft per annum or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the lower basin. All actions taken by the United States shall be subject to applicable law, including availability of appropriations.



11

11

April 2024 Elevation Projections



12

12

Summary

- Conditions in 2024 have been variable – runoff projections are indicating a below normal year
 - Lake Powell is operating in the Mid-Elevation Release Tier with an annual release of 7.48 maf in WY24
 - Lake Mead is operating in a Level 1 Shortage Condition with water savings contributions under the Lower Basin DCP and Minute 323 BWSCP in WY24
- Record of Decision for Supplemental EIS will be signed in May
 - Will govern near-term operations through 2026
- Much uncertainty remains regarding future conditions
 - Post-2026 Process is ongoing



13

13

The Colorado River:
 Operations and Current Conditions
 For further information please visit
<https://www.usbr.gov/lc/riverops.html>



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14