

Hydrology Report – July 2023

UPDATE ON DISCUSSIONS

General Update on Negotiations for Near Term Actions

- Reclamation suspended the comment period for the Draft Environmental Impact Statement on May 22, 2023, to consider and analyze a new Lower Basin Proposed Action Alternative (LB Plan) submitted to Reclamation on that same day.
- Reclamation has indicated it will release a new draft SEIS in the fall. At this time, it is unclear whether it will include Reclamation's original 3 alternatives with updated hydrology along with the Lower Basin Proposed Action Alternative. Discussions are ongoing.
- With respect to planning for post 2026 operational guidelines, the Secretary of the Interior published on June 16, 2023, a Federal Register Notice for Reclamation to develop post 2026 reservoir operational guidelines and strategies for Lakes Powell and Mead. Comments on what the scope of those operational guidelines and strategies should be are due to Reclamation by August 15, 2023.

HYDROLOGY UPDATE

Upper Basin Precipitation and Temperature

- In June, the upper basin received 135% of average precipitation bringing the cumulative precipitation to 116% of average for the year.
- Temperatures in June were 3-7 degrees below average, but the National Weather Service is forecasting the upper basin to have above average temperatures through September.

Upper Basin Snowpack and runoff

- Upper basin snowpack peaked on April 7, 2023, with 24.1 inches of snow water equivalent or 155% of the seasonal median.
- The current projected runoff from this snowpack year is 146% of average.

Current reservoir status

- As of July 3, 2023, Lake Mead is at an elevation of 1,056.7 feet and has about 8.2 million acre-feet in storage (31% capacity).
- As of July 3, 2023, Lake Powell is at an elevation of 3,584.1 feet and has about 9.6 million acre-feet in storage (41% capacity).
- Since this time last year, Lake Mead has increased in elevation by about 14 feet and Lake Powell has increased by about 44 feet.
- Total system storage for the upper and lower basin is around 25.8 million acre-feet (44% capacity).

2023 Reservoir Operations and Drought Operations

- In calendar year 2023, there is a Level 2a shortage under the 2007 Guidelines and there is a required Drought Contingency Plan contribution for Nevada and Arizona.
- Accordingly, in 2023, Nevada’s consumptive use will be reduced by 17,000 acre-feet under the 2007 Interim Guidelines and Nevada will make a Drought Contingency Plan contribution of 8,000 acre-feet.
- Arizona and Mexico are also required to take shortage and make a water savings contribution in 2023. Those amounts are significantly larger than Nevada’s obligations.
- The total combined volumes for Arizona, Nevada, and Mexico are 721,000 acre-feet in calendar year 2023, which will save the equivalent of about 10 feet in elevation in Lake Mead. The reductions and contributions for calendar year 2023 are highlighted in Figure 1.

Lake Mead Elevation (feet msl)	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

Figure 1. The reductions and contributions for calendar year 2023

Water Use in Southern Nevada

- Southern Nevada’s consumptive use in January through May of 2023 was 60,995 acre-feet, which is a 25% decrease in water use compared to last year or 2022.

Reclamation's Lake Mead Projection ²

- Reclamation uses computer models to forecast reservoir elevations based on planned water use and anticipated runoff. Figure 2 shows that the June 24 Month Study is forecasting Lake Mead to end the calendar year 2023 between 1,067.1 and 1,061.2 feet in elevation.

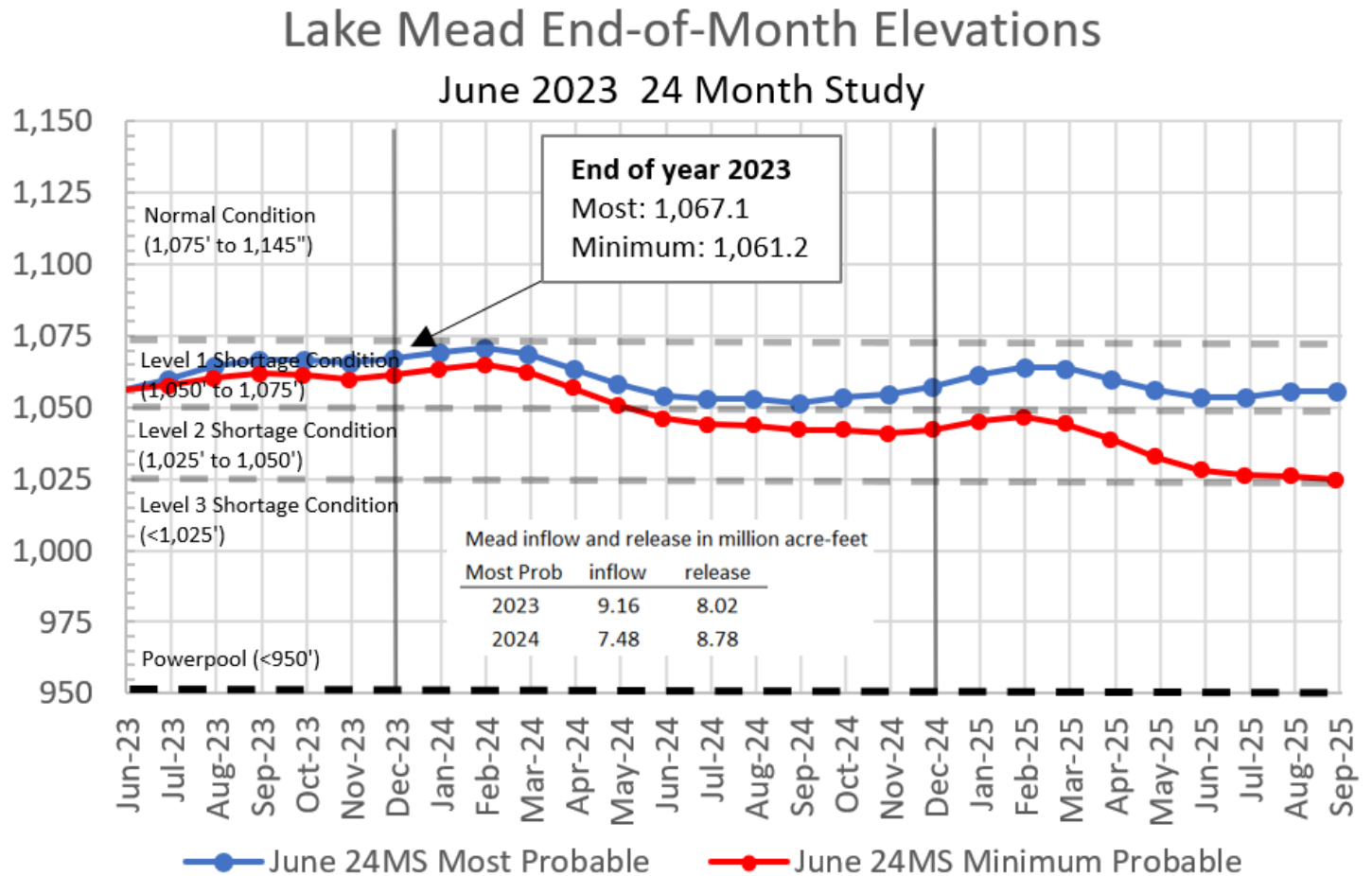


Figure 2. Reclamations June 24 Month Study projections for Lake Mead.

Reclamation's Lake Powell Projection ²

- Reclamations June 24 Month Study is forecasting Lake Powell's elevation to be between 3,575.0 and 3,564.3 feet by the end of the year (Figure 3).

Lake Powell End-of-Month Elevations June 2023 24 Month Study

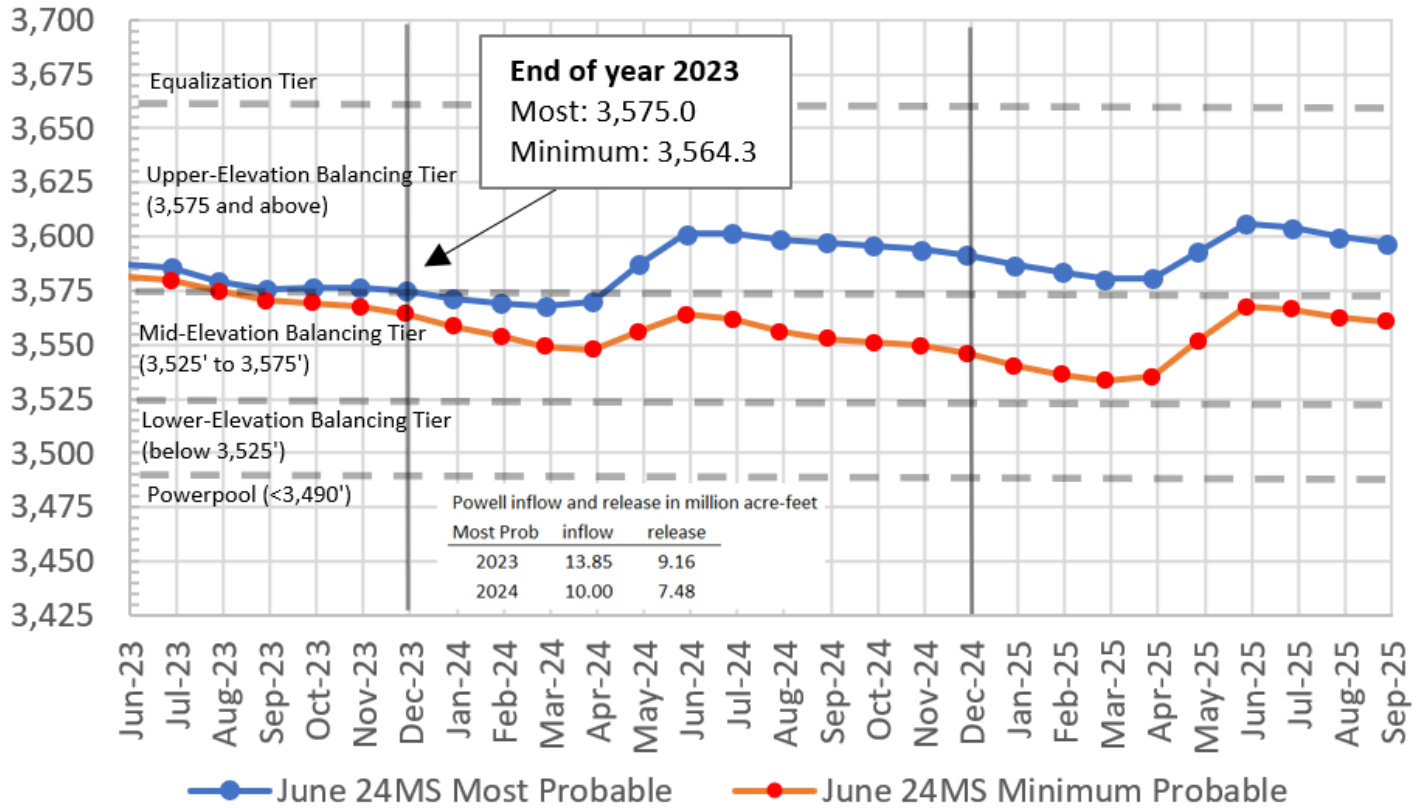


Figure 3. Reclamations June 24 Month Study projections for Lake Powell.

² Reclamation modeling assumes the current operational guidelines and planned conservation activities. Forecasts could improve by implementing additional actions.

Colorado River Commission of Nevada

Hydrology and River Updates

Warren Turkett

July 11, 2023

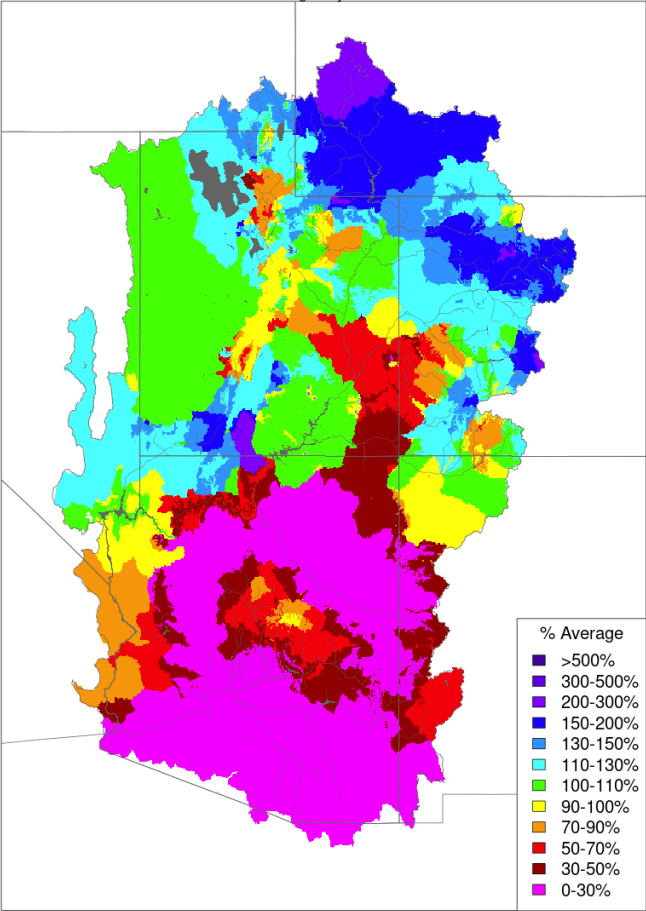


Precipitation and Temperature



Monthly Precipitation - June 2023

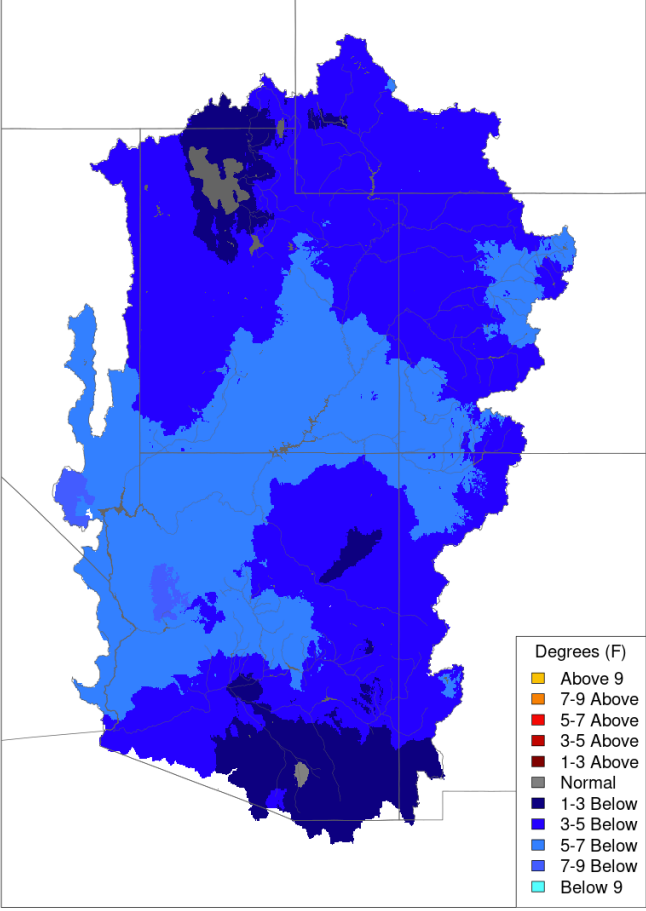
Averaged by Basin



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

Max Temp - Monthly Deviation - June 2023

Averaged by Basin



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

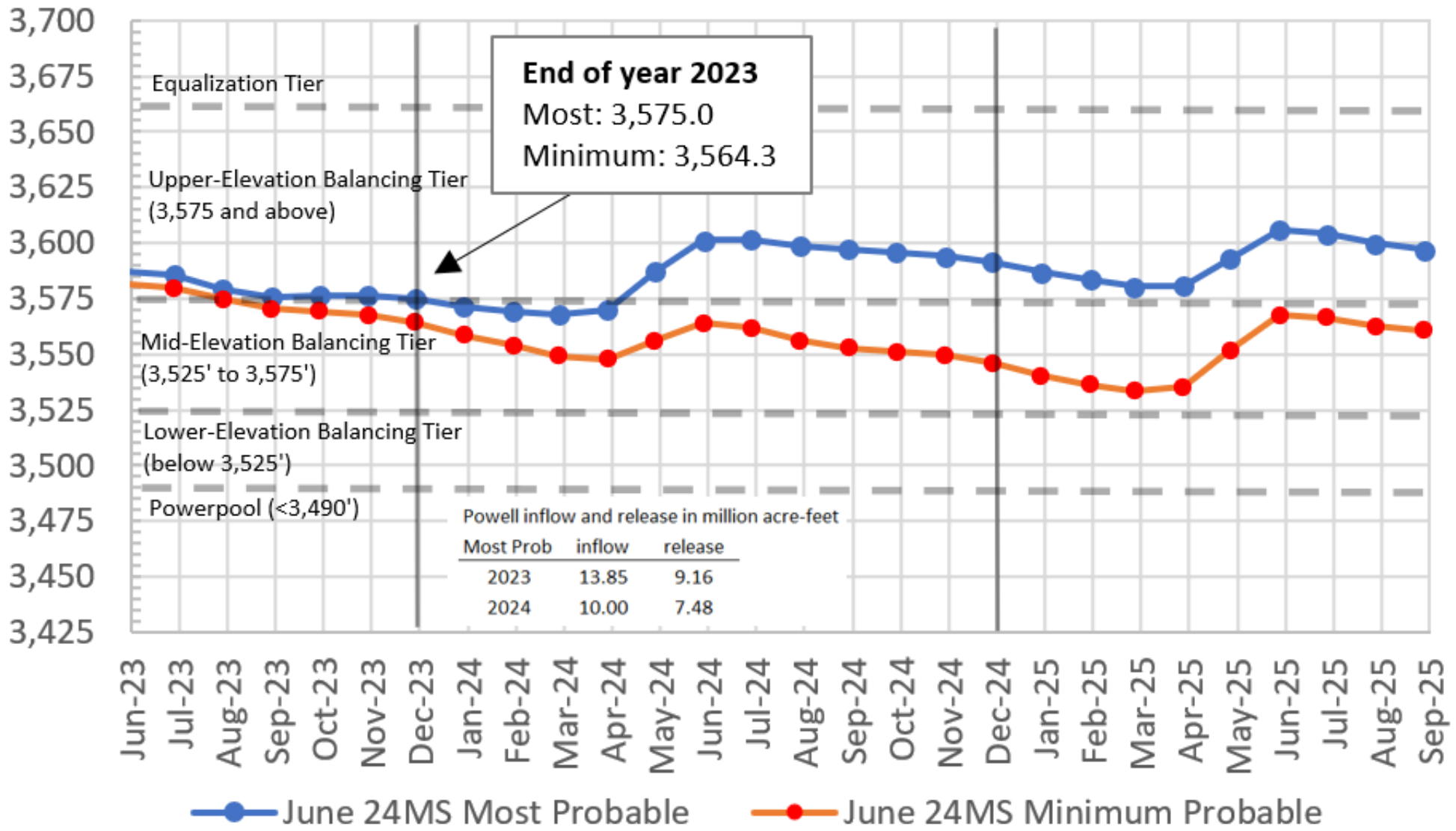
Lake Powell %Average Precipitation Water Year 2023

Area	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Water Year
UC-Powell	84	82	152	170	102	183	67	67	135	116



Lake Powell End-of-Month Elevations

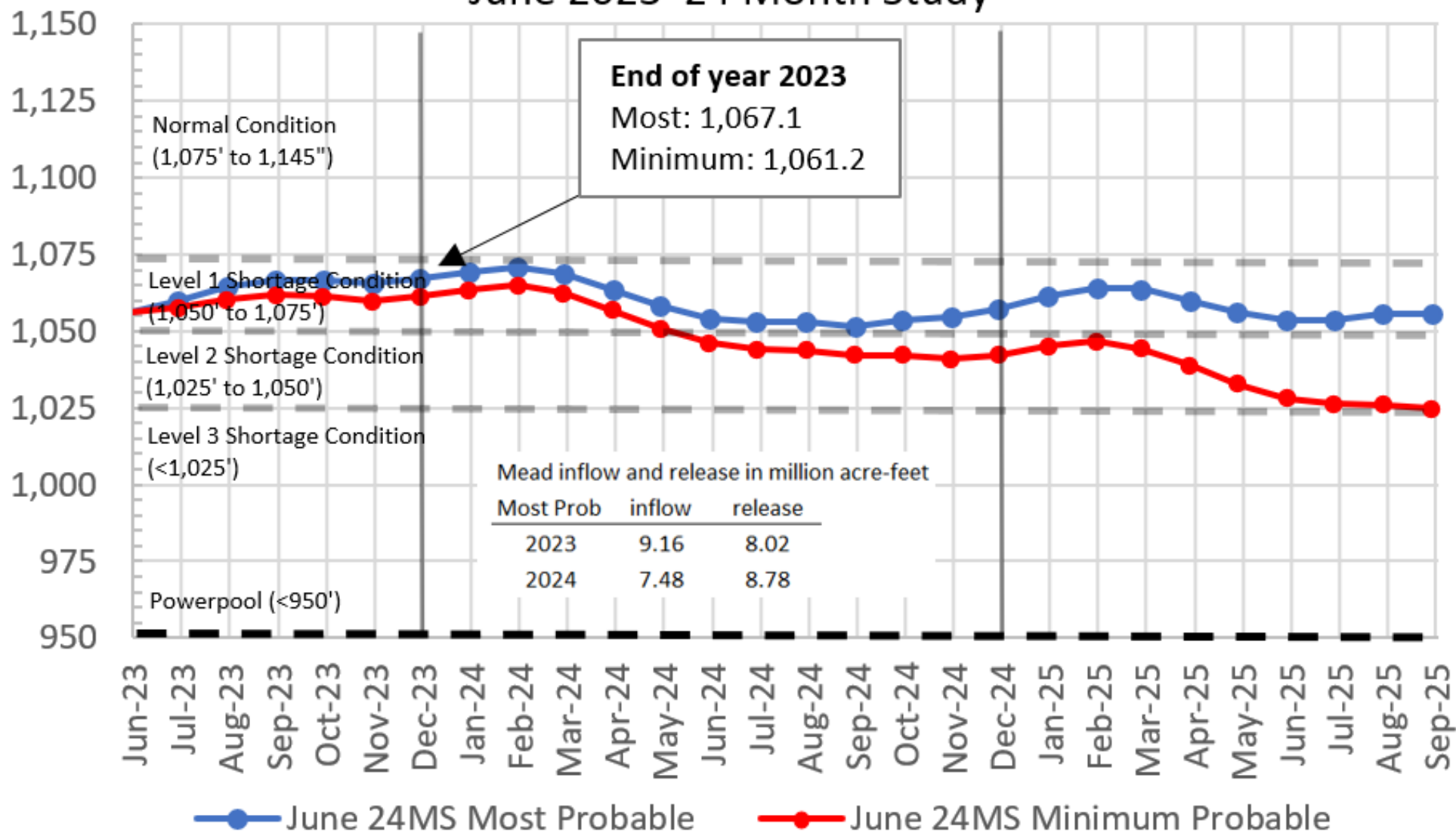
June 2023 24 Month Study





Lake Mead End-of-Month Elevations

June 2023 24 Month Study



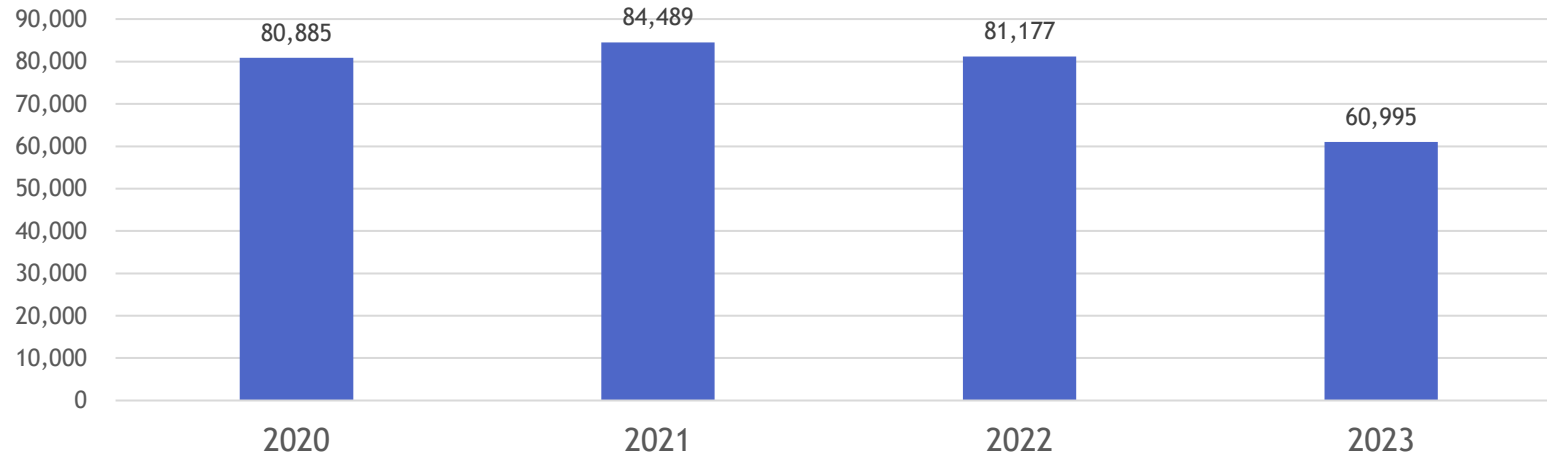
Water Use In Southern Nevada

2023 January - May Southern Nevada Water Use

Acre-Feet

Nevada Annual Allocation	300,000
2022 Drought Contingency Plan contribution	-8,000
Interim Guidelines Shortages	-17,000
Diversions	161,837
Return Flow Credits	100,842
Consumptive Use	60,995 (-25% compared to last year)

Southern Nevada Consumptive Use (January -May)





Negotiations and Updates

Supplemental Environmental Impact Statement for 2007 Guidelines

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