

## Hydrology Report – January 2024

### Upper Basin Hydrology

- In December, the upper basin received 76% of average precipitation bringing the cumulative total to 74% for the year.
- Temperatures in the upper basin for November were 3-7 degrees (F) warmer than average.
- Snowpack accumulation is currently 64% of the median.
- The Basin Forecast Center is forecasting the runoff this year at 72% of average.

### Current reservoir status

- As of January 2, 2024, Lake Mead is at an elevation of 1,068.2 feet and has about 9.0 million acre-feet in storage (35% capacity).
- As of January 2, 2024, Lake Powell is at an elevation of 3,568.8 feet and has about 8.4 million acre-feet in storage (36% capacity).
- Total system storage for the upper and lower basin is around 24.9 million acre-feet (43% capacity).

### 2024 reservoir operations

- Lake Powell will be operated in the Mid-Elevation Release Tier with a release of 7.48 million acre-feet in water year 2024.
- Lake Mead will operate in a Level 1 Shortage Condition in calendar year 2024.
- Accordingly, in 2024, Nevada’s consumptive use will be reduced by 13,000 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 2024. Those amounts are significantly larger than Nevada’s obligations.
- The total combined volumes for Arizona, Nevada, and Mexico are 613,000 acre-feet in calendar year 2024, which will save the equivalent of about 8 feet in elevation in Lake Mead.

### Water Use in Southern Nevada <sup>1</sup>

- Southern Nevada’s consumptive use in January through November of 2023 was 180,379 acre-feet, which is a 16% decrease in water use compared to 2022.

### Reclamation’s Lake Mead and Lake Powell Projections <sup>2</sup>

- Reclamation uses computer models to forecast reservoir elevations based on planned water use and anticipated runoff. The December 24 Month Study is forecasting Lake Mead to be between 1,055.5 and 1,053.0 feet in elevation by the end of 2024.
- Reclamations December 24 Month Study is forecasting Lake Powell’s elevation to be between 3,568.5 and 3,534.6 feet by the end of 2024.

<sup>1</sup> 2023 consumptive use data is preliminary.

<sup>2</sup> 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

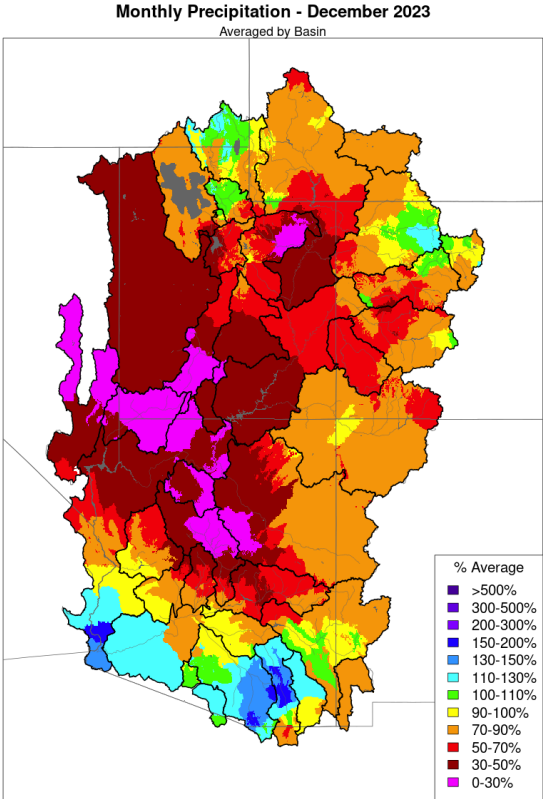
Warren Turkett

January 9, 2024

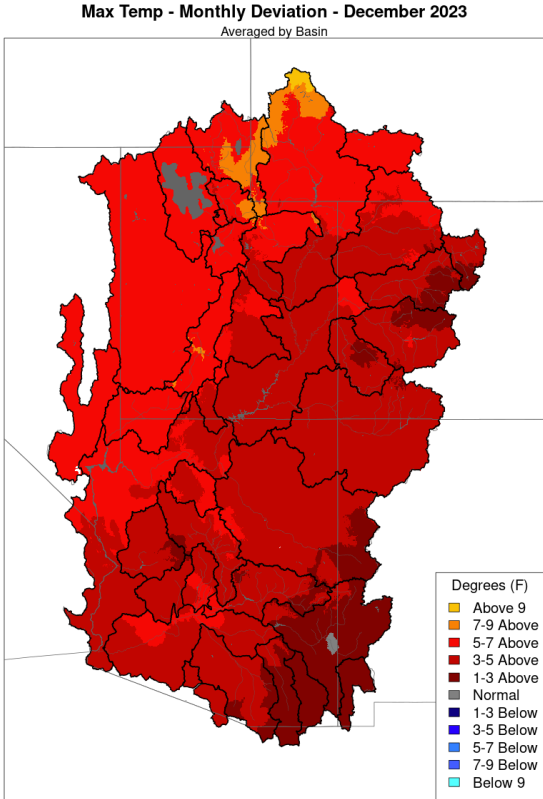




# Precipitation and Temperature



Prepared by NOAA, Colorado Basin River Forecast Center  
Salt Lake City, Utah, [www.cbafc.noaa.gov](http://www.cbafc.noaa.gov)



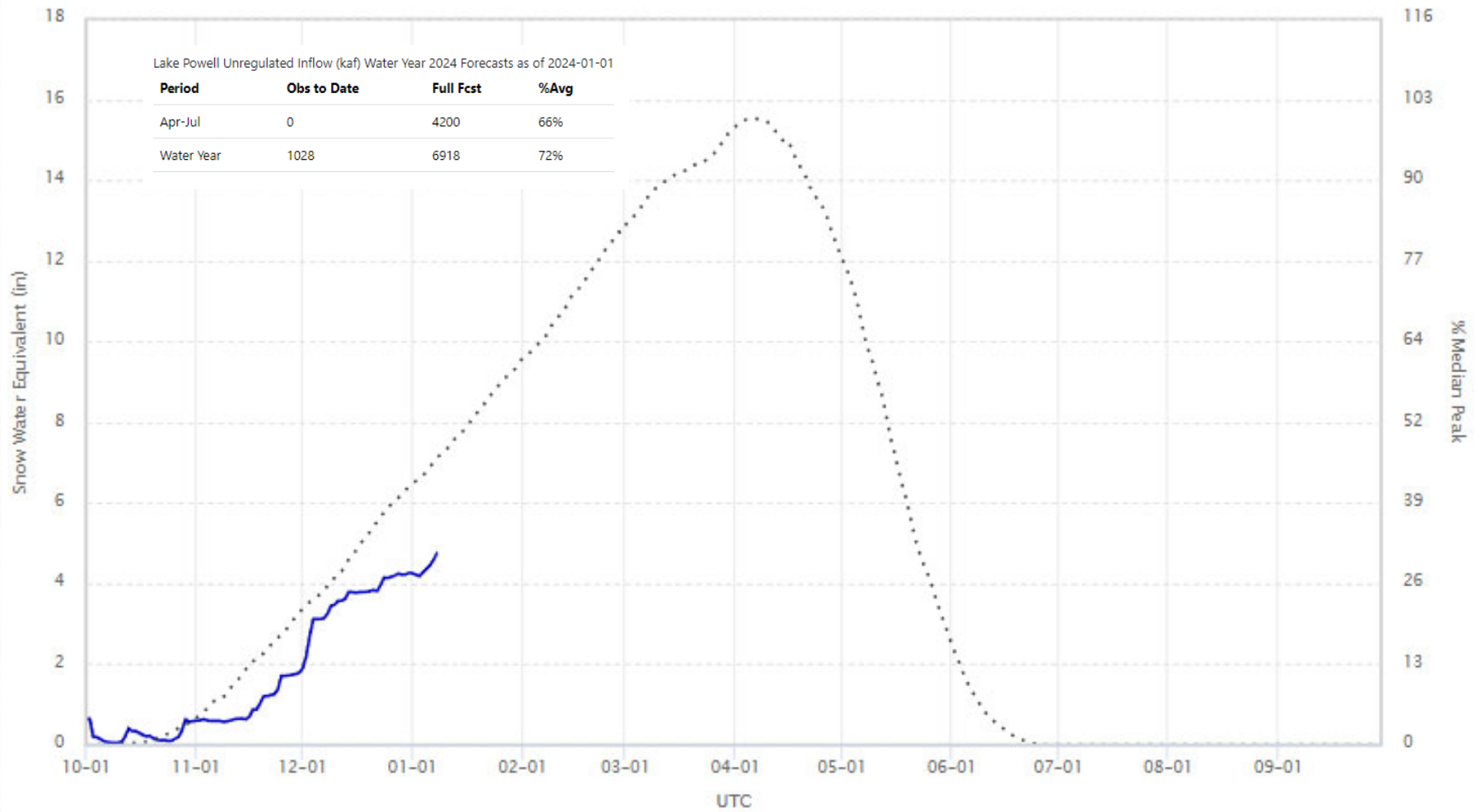
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Lake Powell %Average Precipitation Water Year 2024

Area	Oct	Nov	Dec	Water Year
UC-Powell	92	56	76	74



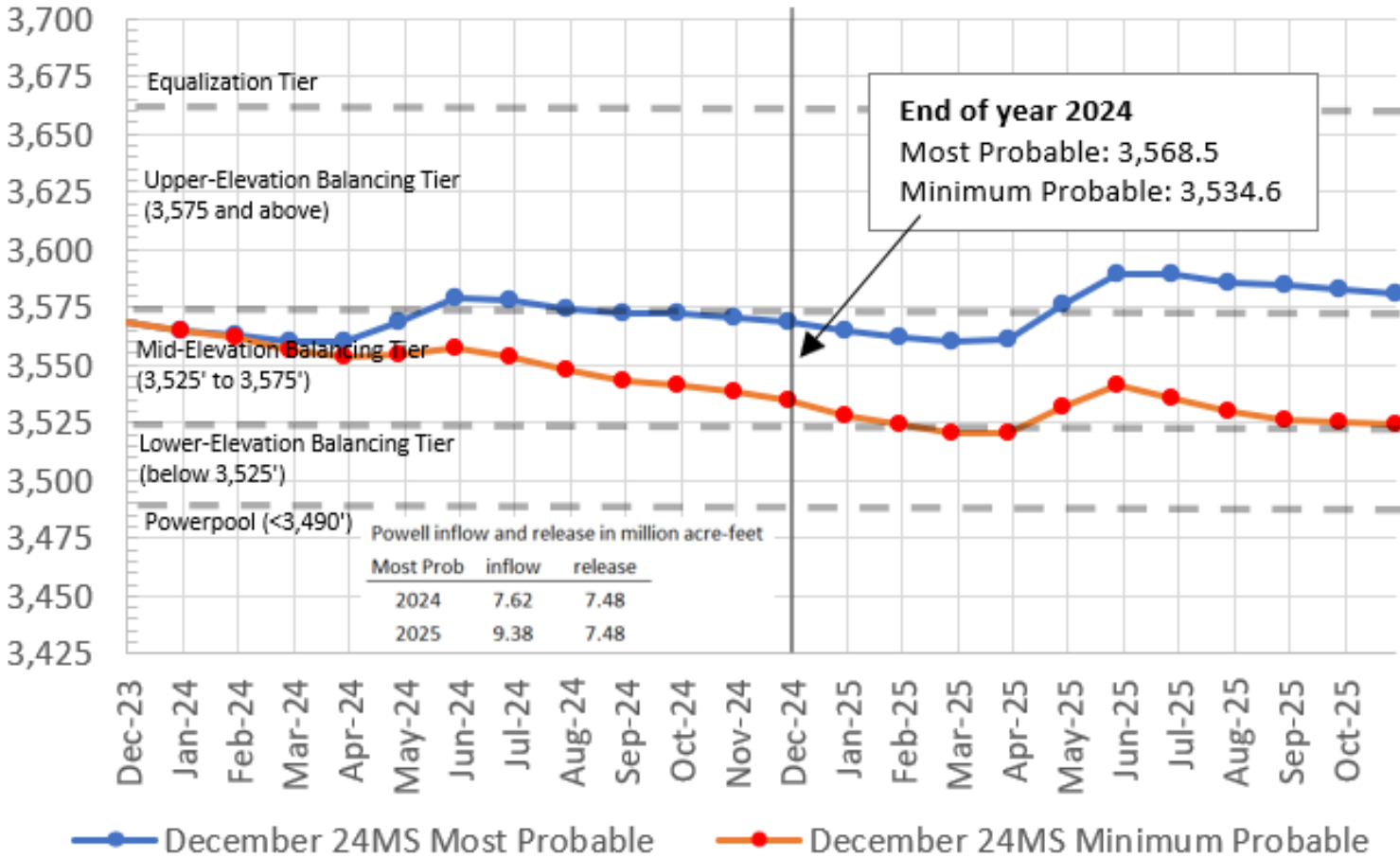
# Snowpack Accumulation





# Lake Powell End-of-Month Elevations

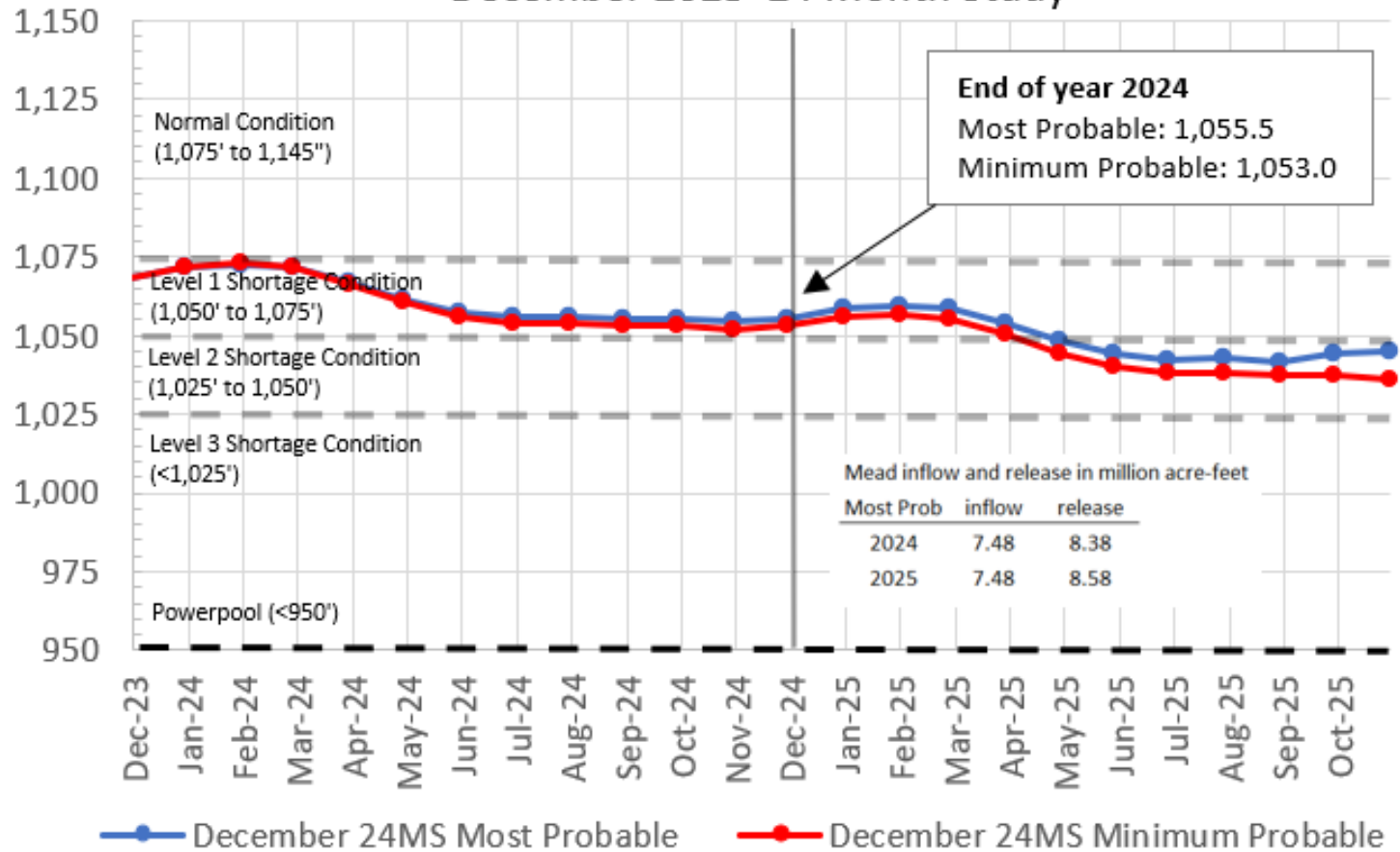
## December 2023 24 Month Study







## Lake Mead End-of-Month Elevations December 2023 24 Month Study





# Water Use In Southern Nevada

## 2023 January - November Southern Nevada Water Use<sup>1</sup>      Acre-Feet

Nevada Annual Allocation	300,000
Drought Contingency Plan contribution	-8,000
Interim Guidelines Shortages	-17,000
Diversions	407,553
Return Flow Credits	227,173
Consumptive Use	180,379
<small><sup>1</sup> 2023 Consumptive use data is preliminary.</small>	<b>(-16% compared to last year)</b>