

## Hydrology Report – February 2024

### Upper Basin Hydrology

- In January, the upper basin received 120% of average precipitation bringing the cumulative total to 86% for the year.
- Temperatures in the upper basin for December were near normal.
- Snowpack accumulation is currently 99% of the median.
- The Basin Forecast Center is forecasting the runoff this year at 77% of average.

### Current reservoir status

- As of February 5, 2024, Lake Mead is at an elevation of **1,073.5** feet and has about 9.5 million acre-feet in storage (36% capacity). The level is **33 feet higher** than the low reached in July of 2022 of 1,041.
- As of February 5, 2024, Lake Powell is at an elevation of 3,564.6 feet and has about 8.1 million acre-feet in storage (35% 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 December of 2023 was 186,805 acre-feet, which is a 17% 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 January 2024 24 Month Study is forecasting Lake Mead to be between 1,056.2 and 1,053.7 feet in elevation by the end of 2024.
- Reclamations January 2024 24 Month Study is forecasting Lake Powell's elevation to be between 3,559.3 and 3,536.4 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

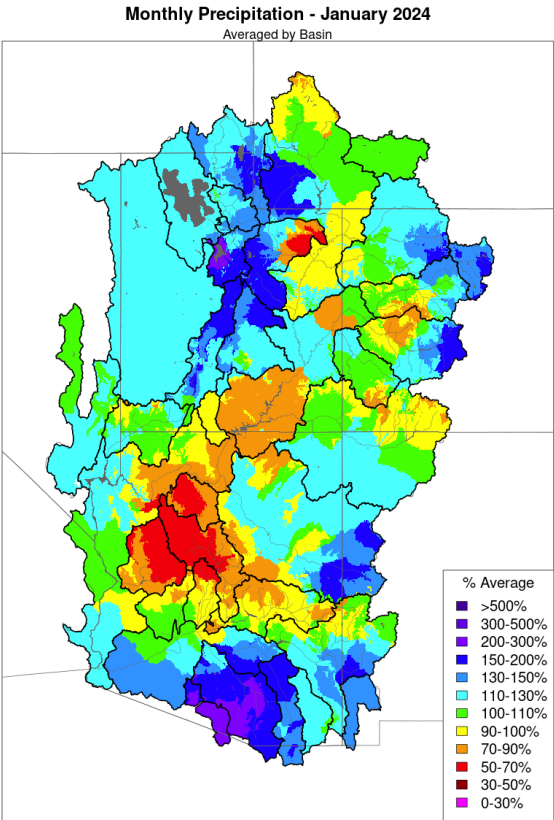
Warren Turkett

February 13, 2024

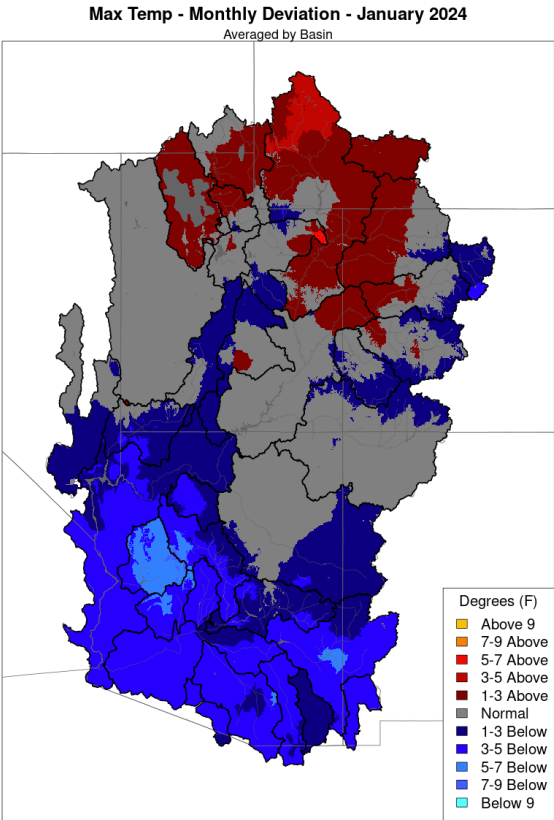




# Precipitation and Temperature



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



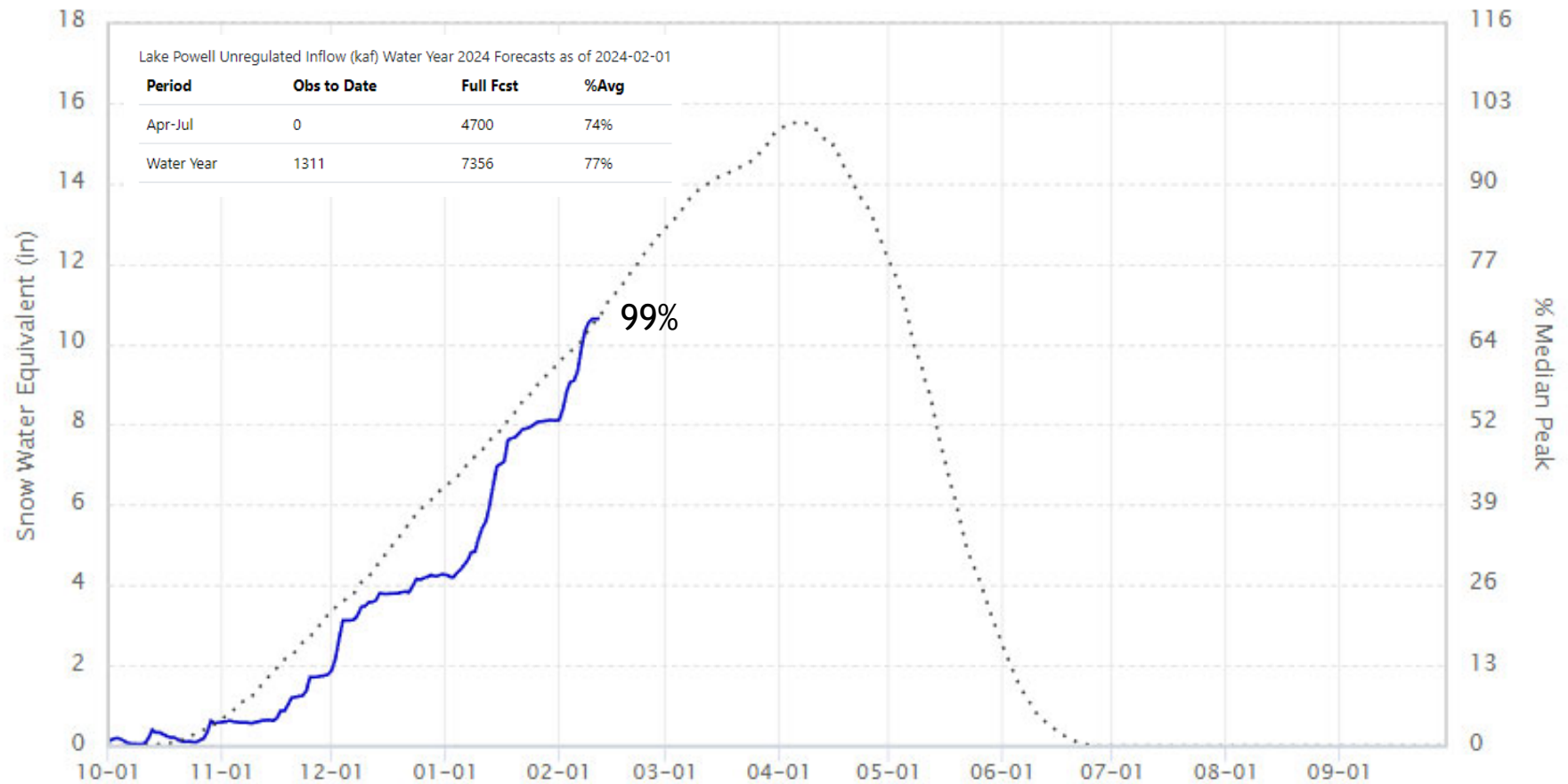
Prepared by NOAA, Colorado Basin River Forecast Center  
Salt Lake City, Utah, [www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

Lake Powell %Average Precipitation Water Year 2024

Area	Oct	Nov	Dec	Jan	Water Year
UC-Powell	92	56	76	120	86



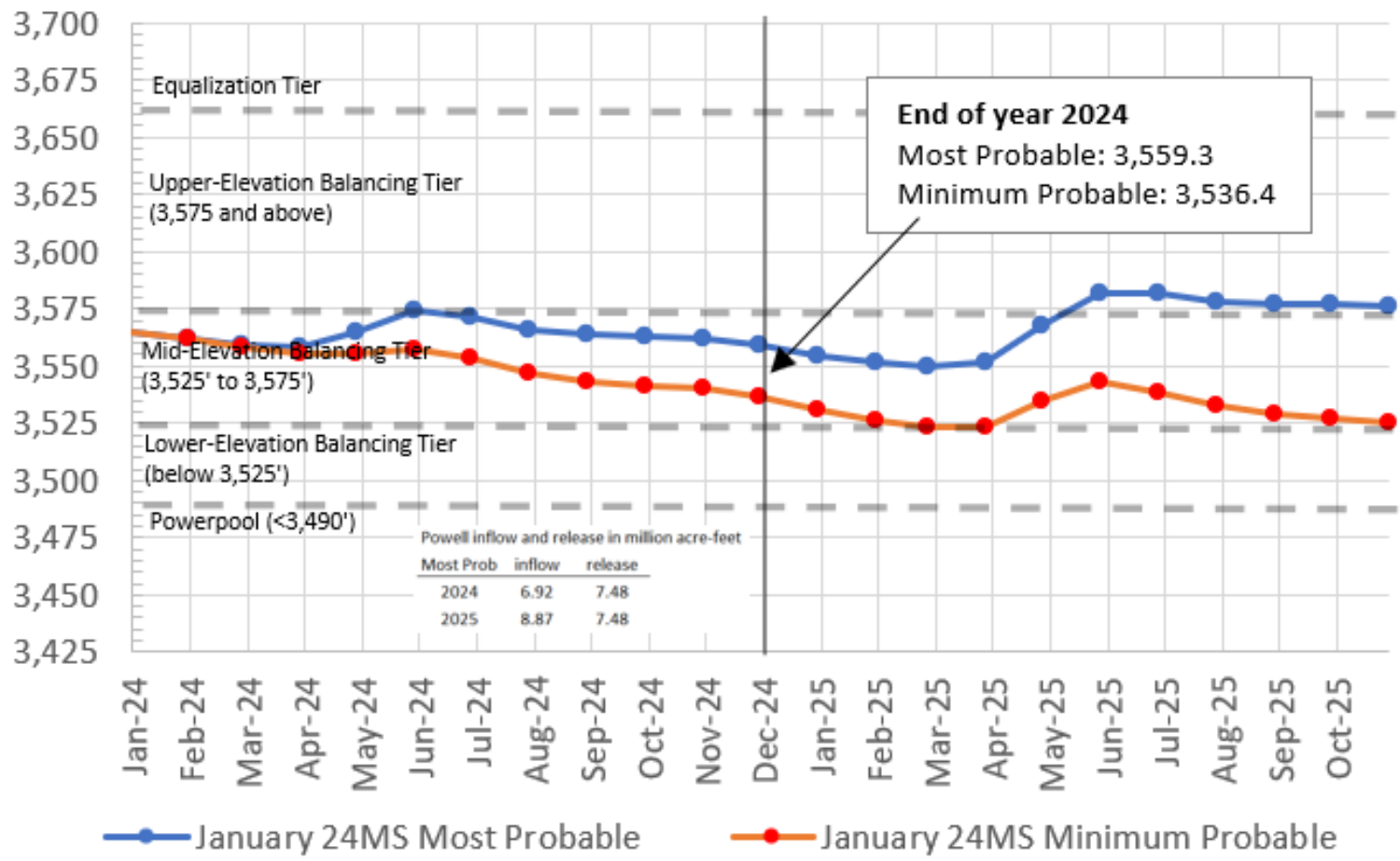
# Snowpack Accumulation





# Lake Powell End-of-Month Elevations

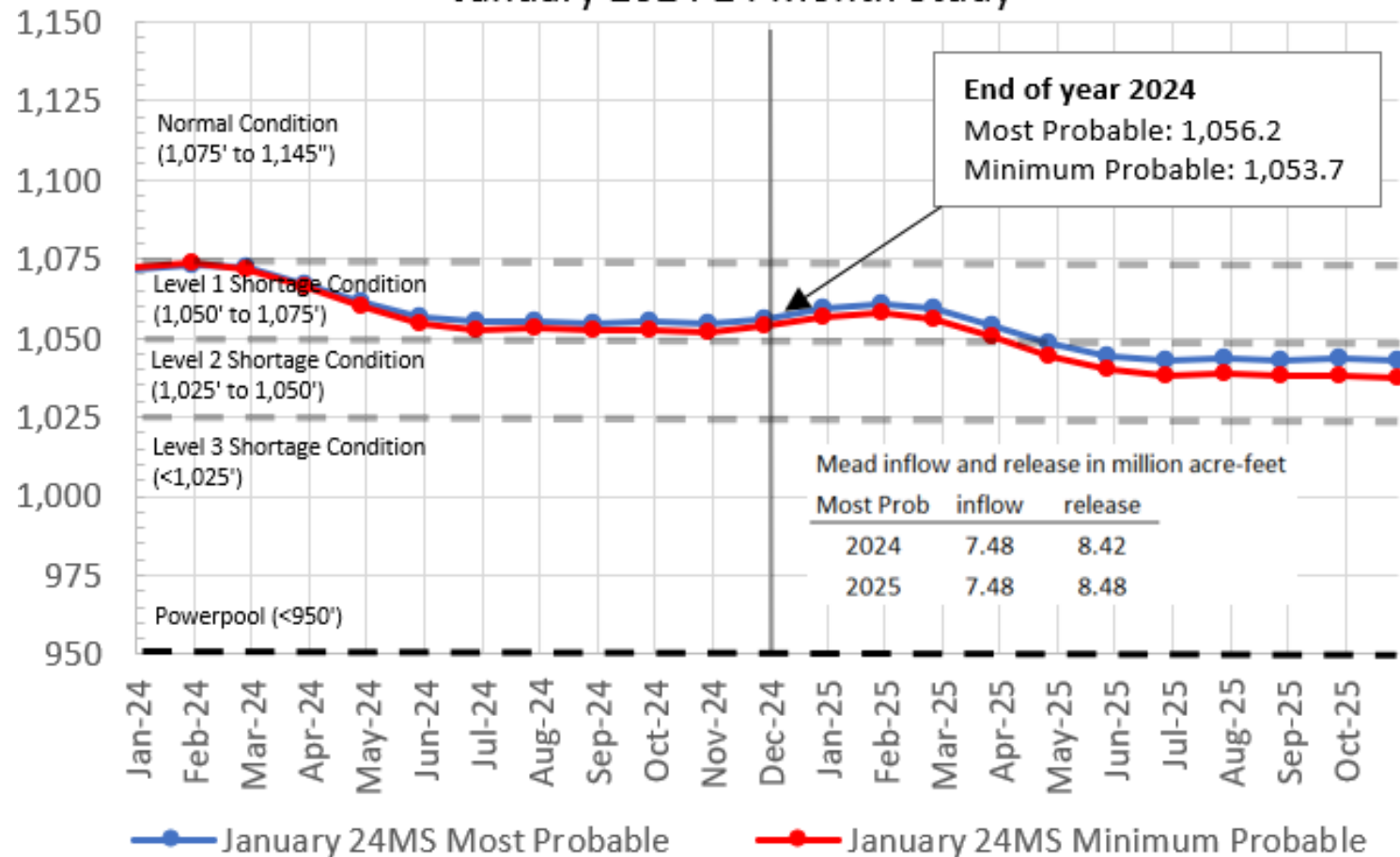
## January 2024 24 Month Study





# Lake Mead End-of-Month Elevations

## January 2024 24 Month Study





## Water Use In Southern Nevada

### 2023 January - December 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	436,437
Return Flow Credits	249,632
Consumptive Use	186,805
<sup>1</sup> 2023 Consumptive use data is preliminary.	(-17% compared to last year)