

## Hydrology Report – March 2024

### Upper Basin Hydrology

- In February, the upper basin received 137% of average precipitation bringing the cumulative total to 96% for the year.
- Temperatures in the upper basin for February were above normal in the eastern portion of the basin.
- Snowpack accumulation is currently 101% of the median.
- The Basin Forecast Center is forecasting runoff this year at 80% of average.

### Current reservoir status

- As of March 4, 2024, Lake Mead is at an elevation of **1,076.6** feet and has about 9.7 million acre-feet in storage (37% capacity). The level is **36 feet higher** than the low reached in July of 2022 of 1,041.
- As of March 4, 2024, Lake Powell is at an elevation of 3,561.7 feet and has about 7.9 million acre-feet in storage (34% 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 of 2024 was 6,304 acre-feet, which is a 10% decrease in water use compared to 2023.

### 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 February 2024 24 Month Study is forecasting Lake Mead to be between 1,057.0 and 1,054.3 feet in elevation by the end of 2024.
- Reclamations February 2024 24 Month Study is forecasting Lake Powell's elevation to be between 3,565.6 and 3,545.4 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

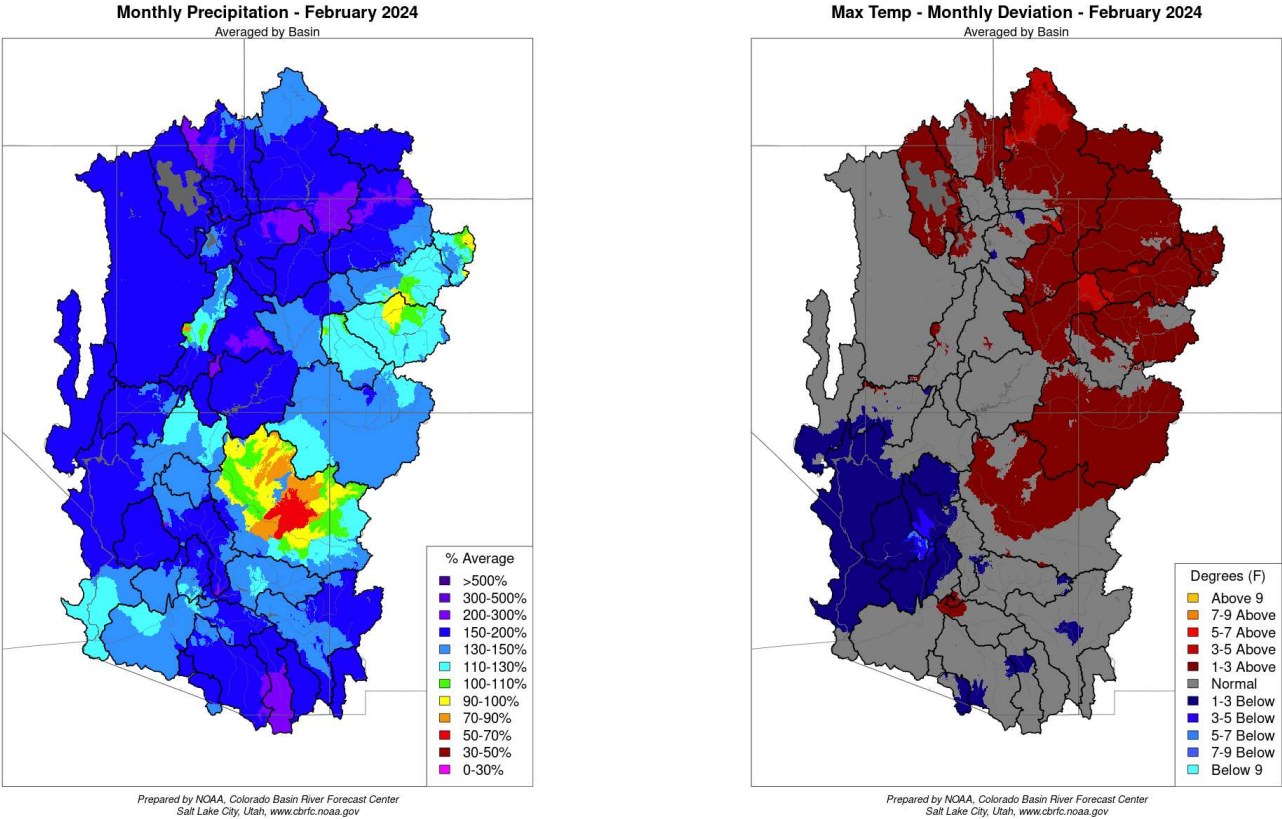
Warren Turkett

March 12, 2024





# Precipitation and Temperature

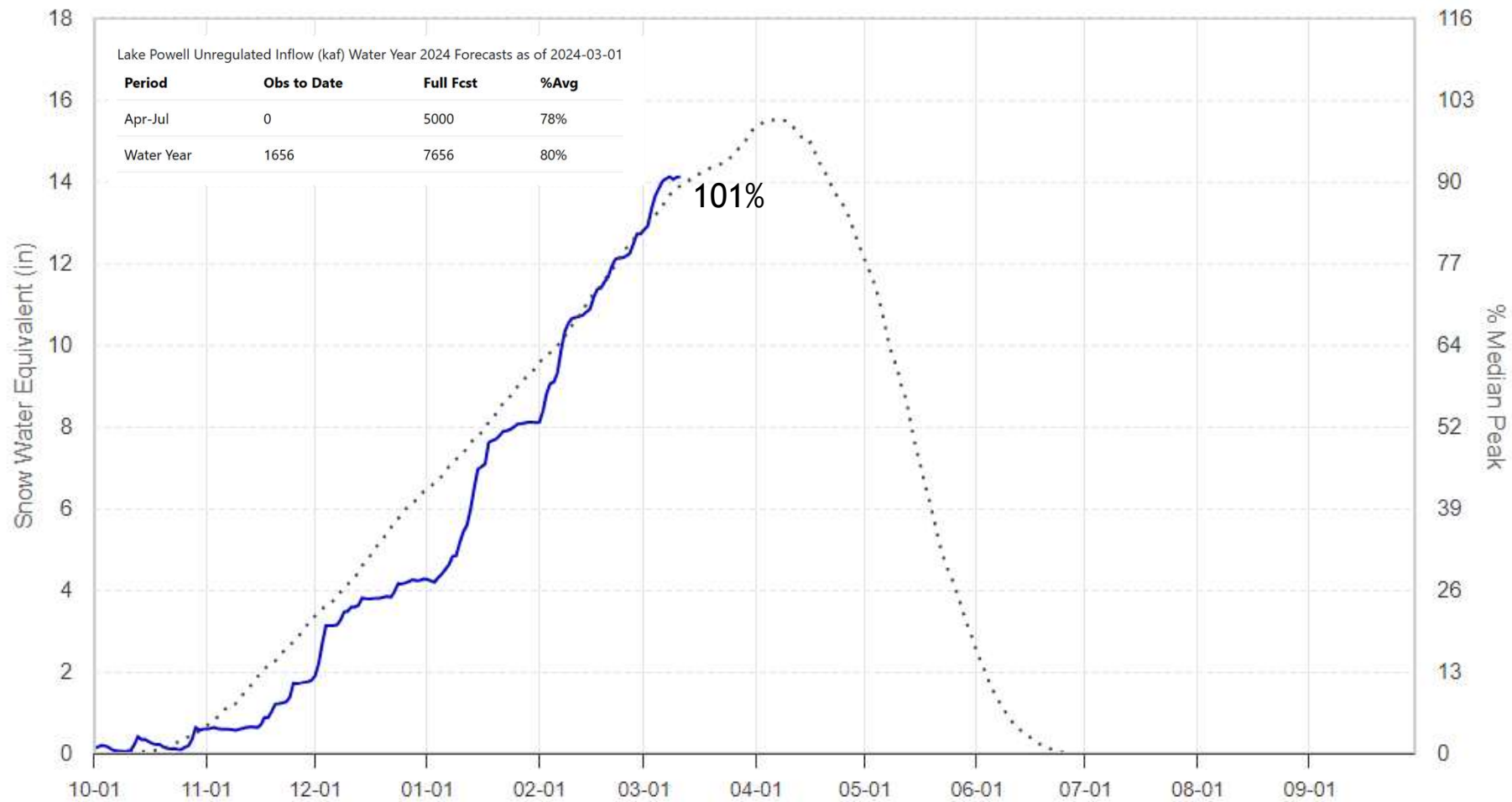


Lake Powell %Average Precipitation Water Year 2024

Area	Oct	Nov	Dec	Jan	Feb	Water Year
UC-Powell	92	56	76	120	137	96



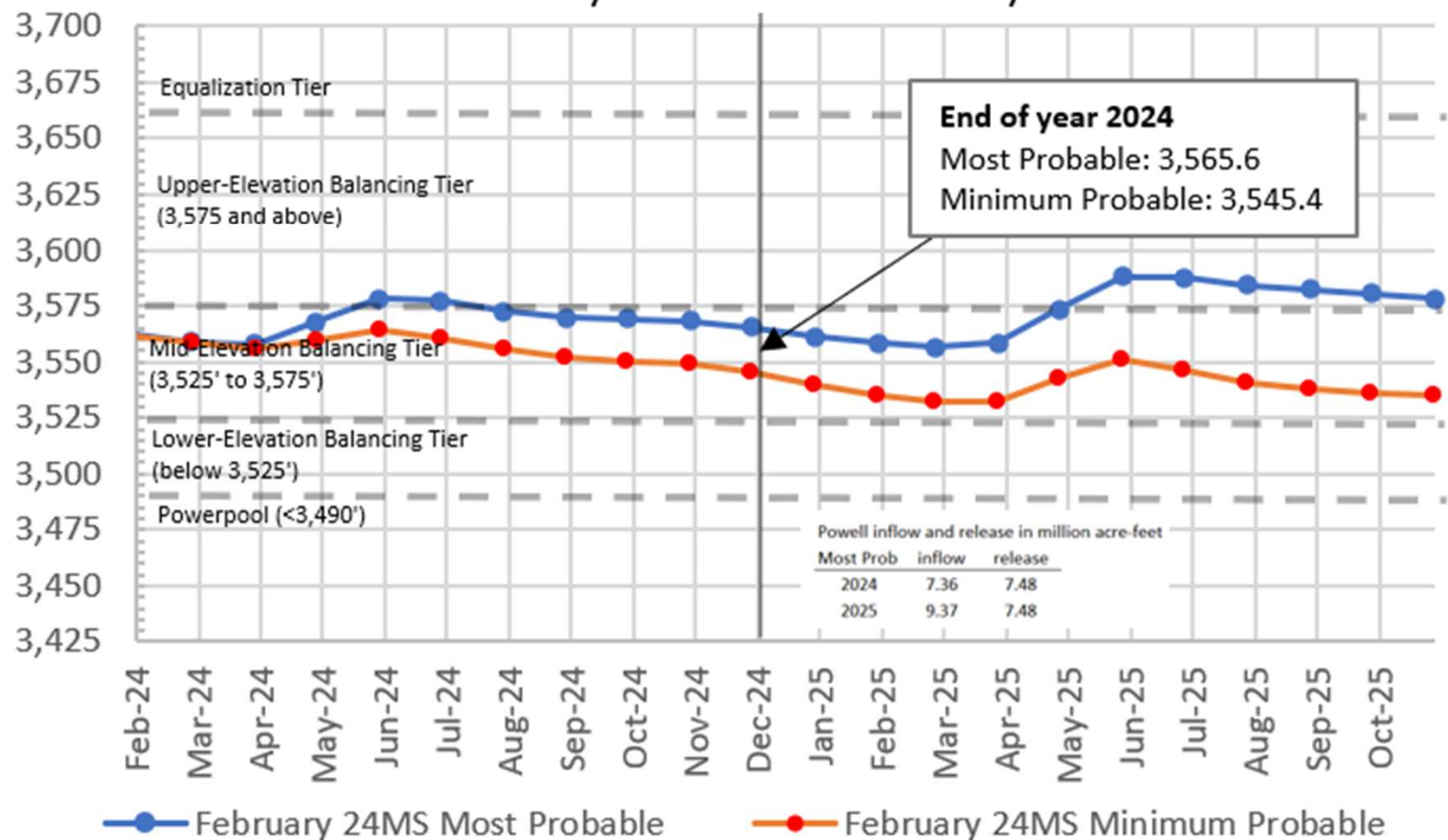
# Snowpack Accumulation







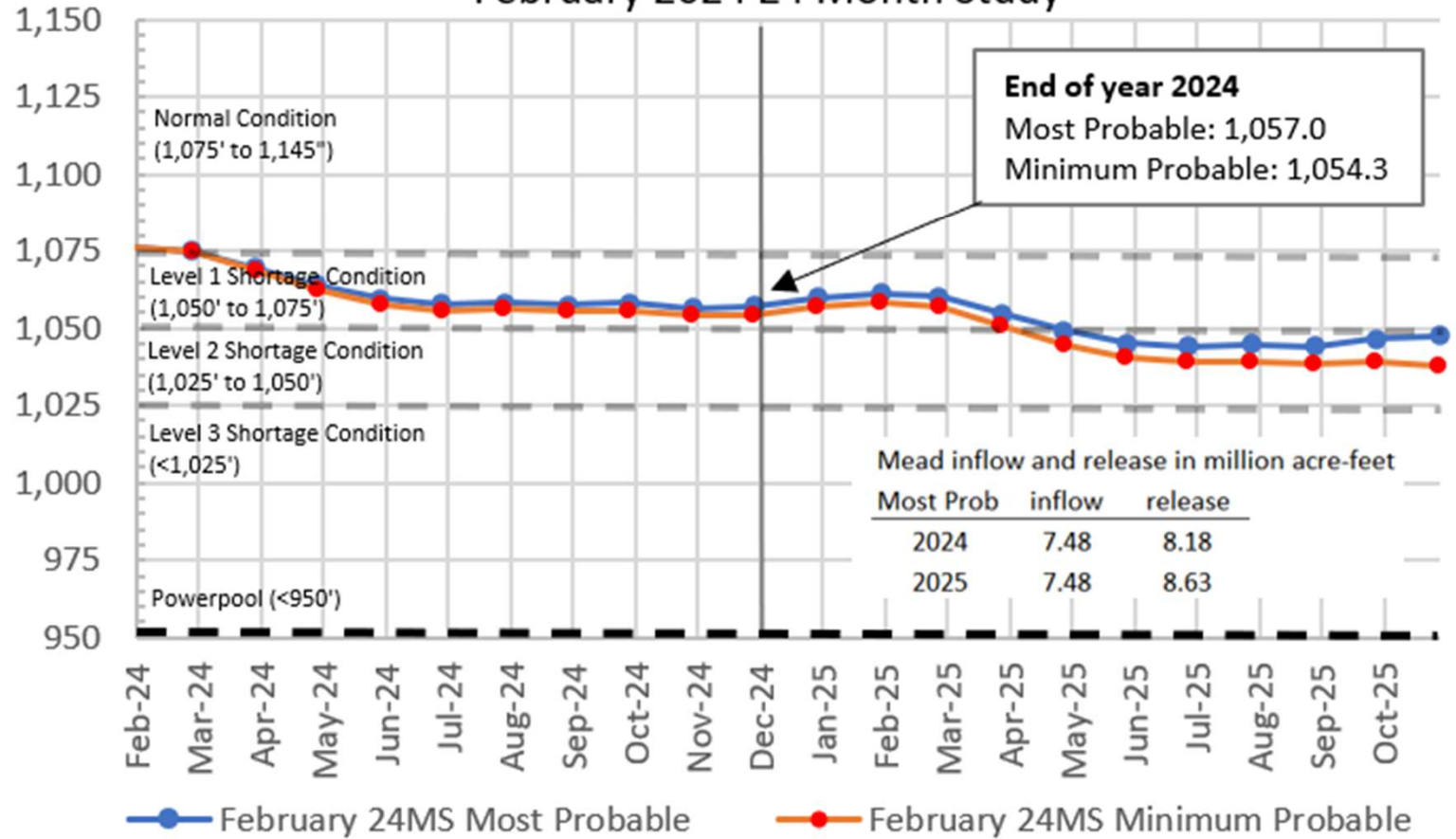
## Lake Powell End-of-Month Elevations February 2024 24 Month Study





# Lake Mead End-of-Month Elevations

## February 2024 24 Month Study





# Water Use In Southern Nevada

## 2024 January Southern Nevada Water Use<sup>1</sup>

## Acre-Feet

Nevada Annual Allocation	300,000
Drought Contingency Plan contribution	-8,000
Interim Guidelines Shortages	-13,000
Diversions	29,054
Return Flow Credits	22,750
Consumptive Use	6,304
<sup>1</sup> 2024 Consumptive use data is preliminary.	(-10% compared to last year)