

Hydrology Report – December 2023

Upper Basin Hydrology

- In November, the upper basin received 56% of average precipitation bringing the cumulative total to 73% for the year.
- Temperatures in the upper basin for November were 1-3 degrees (F) warmer than average.
- Snowpack accumulation is currently 84% of the median.
- The Basin Forecast Center is forecasting the runoff this year at 79% of average.

Current reservoir status

- As of December 4, 2023, Lake Mead is at an elevation of 1,065.1 feet and has about 8.8 million acre-feet in storage (34% capacity).
- As of December 4, 2023, Lake Powell is at an elevation of 3,571.2 feet and has about 8.6 million acre-feet in storage (37% 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 ¹

- Southern Nevada's consumptive use in January through October of 2023 was 171,790 acre-feet, which is a 17% decrease in water use compared to 2022.

Reclamation's Lake Mead and Lake Powell Projections ²

- Reclamation uses computer models to forecast reservoir elevations based on planned water use and anticipated runoff. The November 24 Month Study is forecasting Lake Mead to be between 1,055.2 and 1,051.7 feet in elevation by the end of 2024.
- Reclamations November 24 Month Study is forecasting Lake Powell's elevation to be between 3,579.6 and 3,543.9 feet by the end of 2024.

¹ 2023 consumptive use data is preliminary.

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

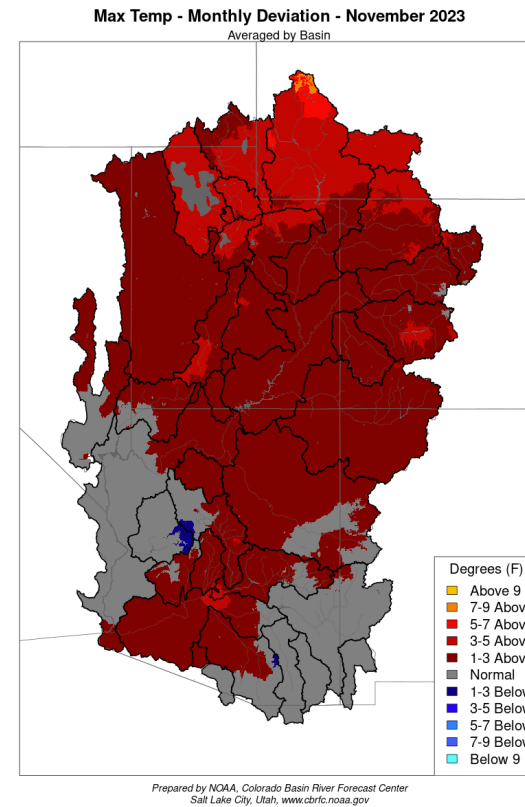
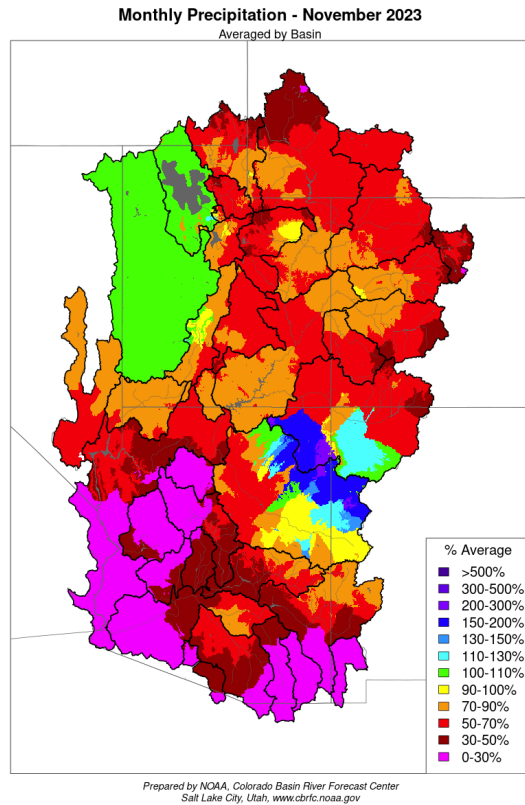
Warren Turkett

December 12, 2023





Precipitation and Temperature



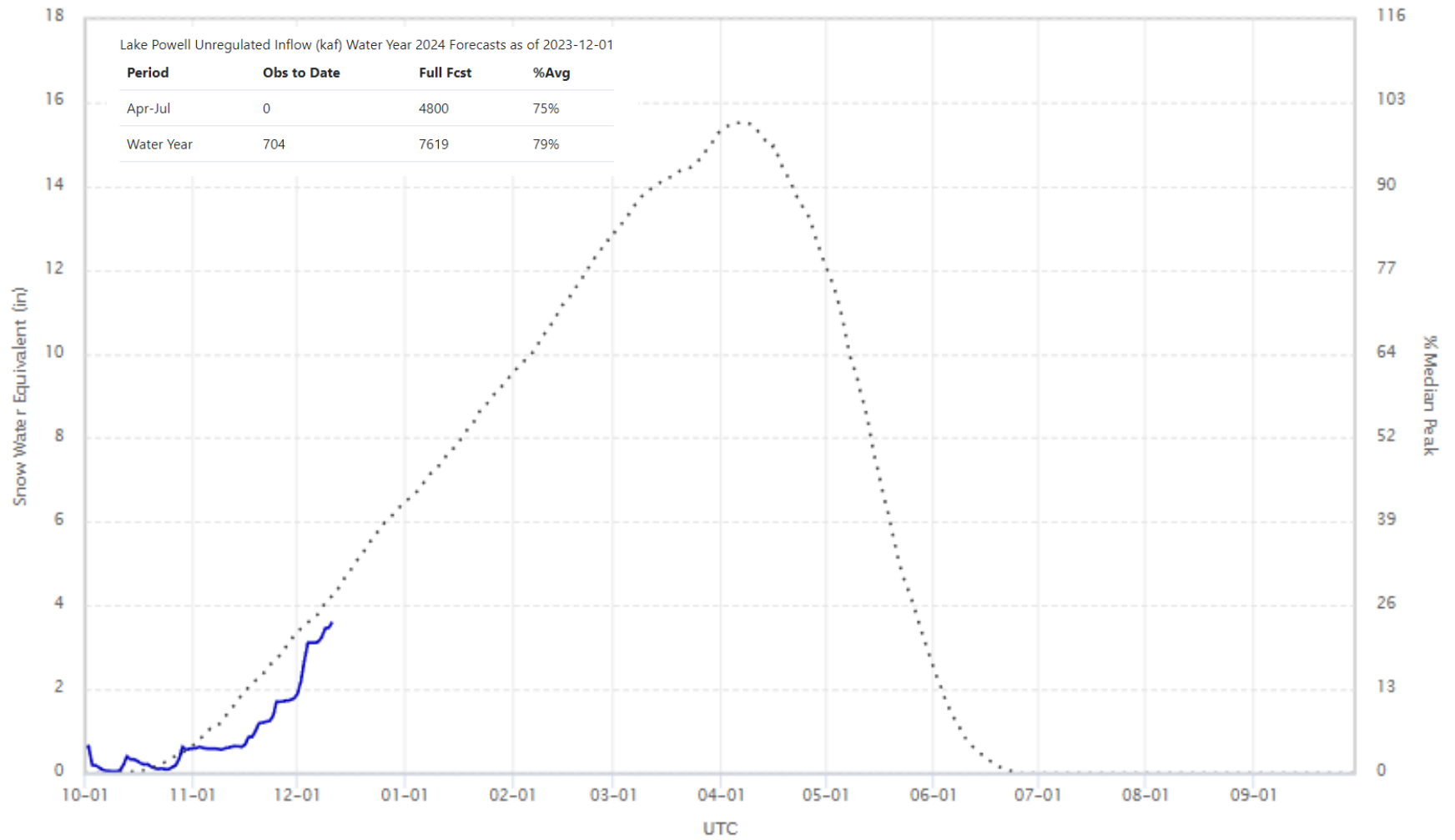
Lake Powell %Average Precipitation Water Year 2024

Area	Oct	Nov	Water Year
UC-Powell	92	56	73



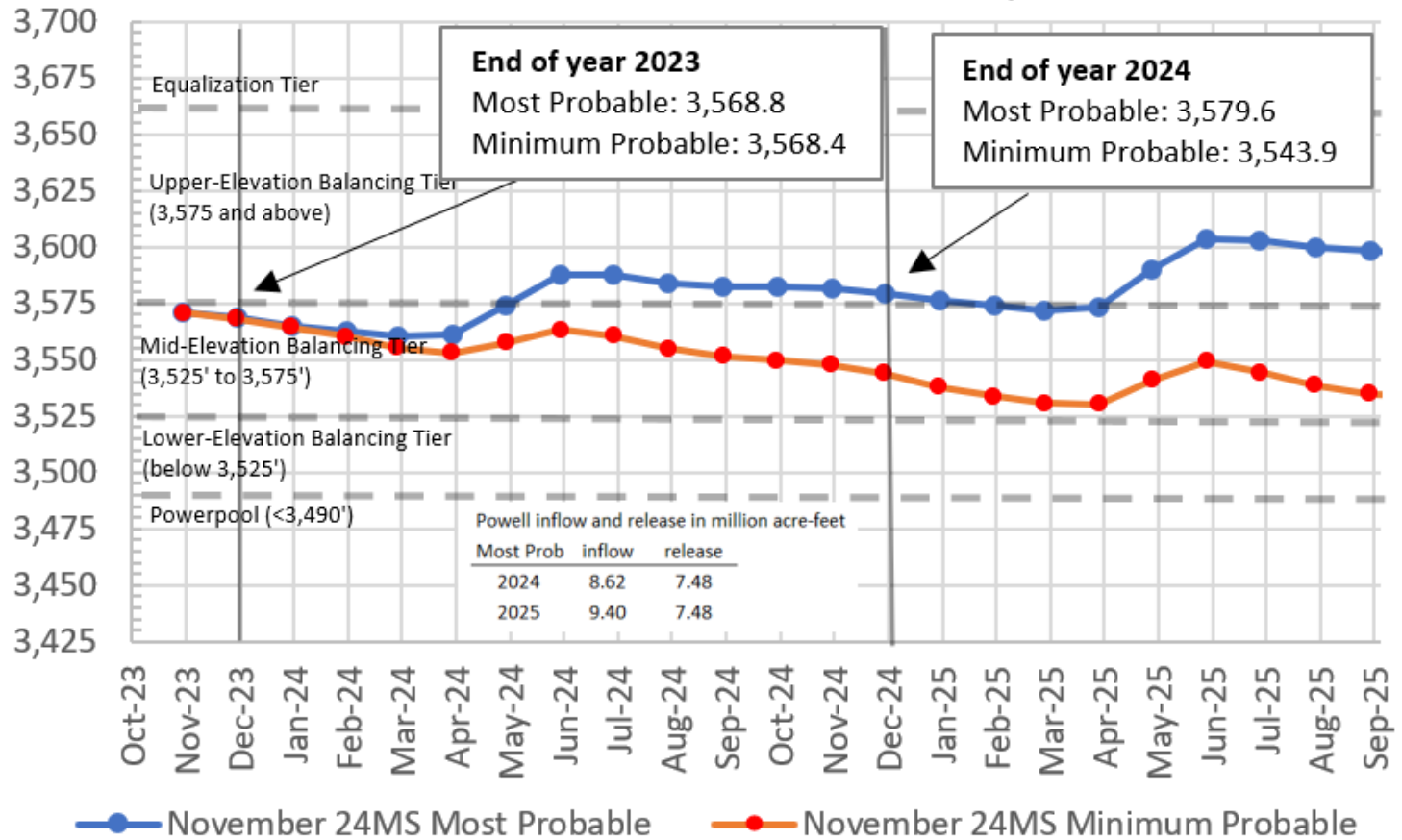
Untitled - Group SNOTEL Plot - NOAA/CBRFC

104 sites, Created: 2023-12-11 15:42Z





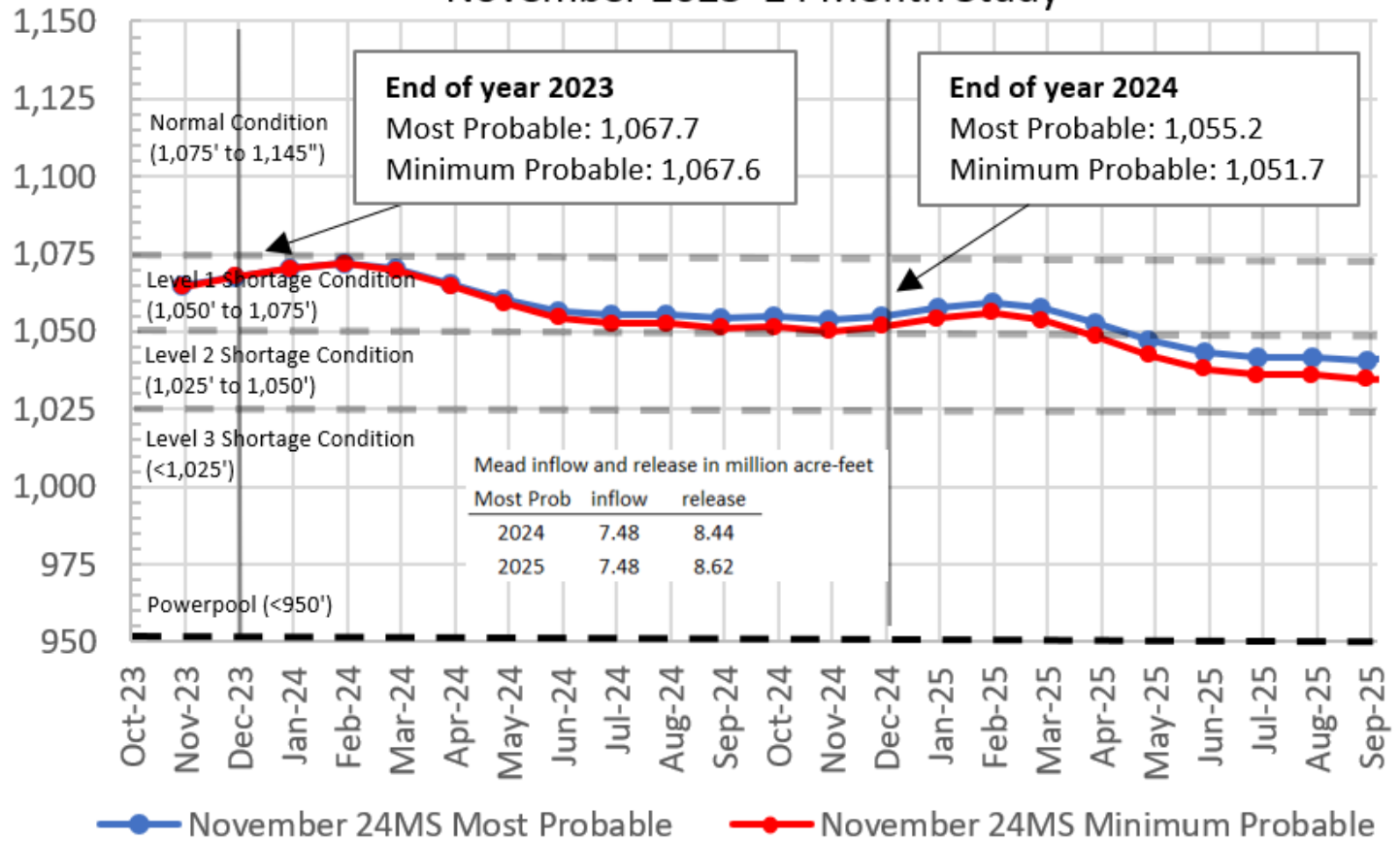
Lake Powell End-of-Month Elevations November 2023 24 Month Study





Lake Mead End-of-Month Elevations

November 2023 24 Month Study





Water Use In Southern Nevada

2023 January - October Southern Nevada Water Use¹

Acre-Feet

Nevada Annual Allocation	300,000
Drought Contingency Plan contribution	-8,000
Interim Guidelines Shortages	-17,000
Diversions	377,089
Return Flow Credits	205,299
Consumptive Use	171,790
	(-17% compared to last year)

¹ 2023 Consumptive use data is preliminary.