

## **Explanation of Hydrologic Scenarios**

In addition to the May 2021 24-Month Study based on the Most Probable inflow scenario, and in accordance with the Upper Basin Drought Response Operations Agreement (DROA), Reclamation has conducted model runs in May to determine a possible range of reservoir elevations under Probable Minimum and Probable Maximum inflow scenarios. Normally, outside of the DROA, Probable Minimum and Probable Maximum model runs are only conducted in January, April, August, and October. The Probable Minimum inflow scenario reflects a dry hydrologic condition which statistically would be exceeded 90% of the time. The Most Probable inflow scenario reflects a median hydrologic condition which statistically would be exceeded 50% of the time. The Probable Maximum inflow scenario reflects a wet hydrologic condition which statistically would be exceeded 50% of the time. The Probable Maximum inflow scenario reflects a wet hydrologic condition which statistically would be exceeded 50% of the time. The Probable Maximum inflow scenario reflects a wet hydrologic condition which statistically would be exceeded 10% of the time. There is approximately an 80% probability that a future elevation will fall inside the range of the minimum and maximum inflow scenarios. Additionally, there are possible inflow scenarios that would result in reservoir elevations falling outside the ranges indicated in these reports.

## May 2021 Probable Minimum 24-Month Study

The water year 2021 unregulated inflow into Lake Powell in the May Probable Minimum inflow scenario is 2.73 maf, or 25 percent of average. Consistent with the Interim Guidelines, the May Probable Minimum 24-Month Study results in a projected release volume from Glen Canyon Dam of 8.23 maf in water year 2021 and 7.00 maf in water year 2022. With intervening flows between Lake Powell and Lake Mead of 0.61 maf in water year 2021, Lake Mead's elevation is projected to be 1,066.29 feet on September 30, 2021.

## May 2021 Most Probable 24-Month Study

The water year 2021 unregulated inflow into Lake Powell in the May Most Probable inflow scenario is 3.64 maf, or 34 percent of average. Consistent with the Interim Guidelines, the May Most Probable 24-Month Study results in a projected release volume from Glen Canyon Dam of 8.23 maf in water year 2021 and 7.48 maf in water year 2022. With intervening flows between Lake Powell and Lake Mead of 0.64 maf in water year 2021, Lake Mead's elevation is projected to be 1,066.72 feet on September 30, 2021.

## May 2021 Probable Maximum 24-Month Study

The water year 2021 unregulated inflow into Lake Powell in the May Probable Maximum inflow scenario is 5.25 maf, or 49 percent of average. Consistent with the Interim Guidelines, the May Probable Maximum 24-Month Study results in a projected release volume from Glen Canyon Dam of 8.23 maf in water year 2021 and 7.48 maf in water year 2022. With intervening flows between Lake Powell and Lake Mead of 0.70 maf in water year 2021, Lake Mead's elevation is projected to be 1,067.36 feet on September 30, 2021.

The 2021 AOP is available for download at:	https://www.usbr.gov/lc/region/g4000/aop/AOP21.pdf.
The Interim Guidelines are available for download at:	https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf.
The Colorado River DCPs are available for download at	https://www.usbr.gov/lc/region/programs/dcp.html.
The Upper Basin Hydrology Summary can be found at:	https://www.usbr.gov/uc/water/crsp/studies/24Month_05_UCB.pdf.

