

# April 2022 24-Month Study Projections Lake Powell and Lake Mead: End of Month Elevation Charts



## Explanation of Hydrologic Scenarios

In addition to the April 2022 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 additional model runs in April to determine a possible range of reservoir elevations under Probable Minimum and Probable Maximum inflow scenarios. 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 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.

The Upper Basin DROA provisions to protect a target elevation at Lake Powell of 3,525 feet have been incorporated into the April 2022 24-Month Study and include an adjusted monthly release volume pattern for Glen Canyon Dam that will hold back a total of 0.350 million acre-feet (maf) in Lake Powell from January through April. There are continued discussions when and how that same amount of water (0.350 maf) will be released later in the water year. The annual release volume from Lake Powell for water year 2022 will continue to be 7.48 maf.<sup>1</sup> If future projections indicate the monthly adjustments are insufficient to protect Powell's elevation, Reclamation will again consider additional water releases from the upstream initial units of the Colorado River Storage Project later this year.

## April 2022 Probable Minimum 24-Month Study

The water year 2022 unregulated inflow in the Probable Minimum inflow scenario is 5.27 (maf), or 55% of average. Consistent with the Interim Guidelines, the April Probable Minimum 24-Month Study includes a release volume from Glen Canyon Dam of 7.48 maf in water year 2022 and 7.00 maf in water year 2023. Under the probable minimum scenario, Lake Powell's elevation is projected to be 3,504.04 feet on December 31, 2022. With intervening flows between Lake Powell and Lake Mead of 0.568 maf in calendar year 2022, Lake Mead's elevation is projected to be 1,045.01 feet on December 31, 2022.

## April 2022 Most Probable 24-Month Study

The water year 2022 unregulated inflow into Lake Powell in the Most Probable inflow scenario is 6.31 maf, or 66% of average. Consistent with the Interim Guidelines, the April Most Probable 24-Month Study includes a release volume from Glen Canyon Dam of 7.48 maf in water year 2022 and 7.50 maf in water year 2023. Under the most probable scenario, Lake Powell's elevation is projected to be 3,515.05 feet on December 31, 2022. With intervening flows between Lake Powell and Lake Mead of 0.687 maf in calendar year 2022, Lake Mead's elevation is projected to be 1,047.10 feet on December 31, 2022.

## April 2022 Probable Maximum 24-Month Study

The water year 2022 unregulated inflow in the Probable Maximum inflow scenario is 8.98 maf, or 94% of average. Consistent with the Interim Guidelines, the April Probable Maximum 24-Month Study includes a release volume from Glen Canyon Dam of 7.48 maf in water years 2022 and 2023. Under the probable maximum scenario, Lake Powell's elevation is projected to be 3,547.32 feet on December 31, 2022. With intervening flows between Lake Powell and Lake Mead of 0.770 maf in calendar year 2022, Lake Mead's elevation is projected to be 1,049.08 feet on December 31, 2022.

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<sup>1</sup> More information on the adjusted release from Glen Canyon Dam can be found here: <https://www.usbr.gov/newsroom/#/news-release/4073>.

The 2022 AOP is available online at:

<https://www.usbr.gov/lc/region/g4000/aop/AOP22.pdf>.

The Interim Guidelines are available online at:

<https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>.

The Colorado River DCPs are available online at:

<https://www.usbr.gov/dcp/finaldocs.html>.

The 2021 Lower Basin Memorandum of Understanding is available online at:

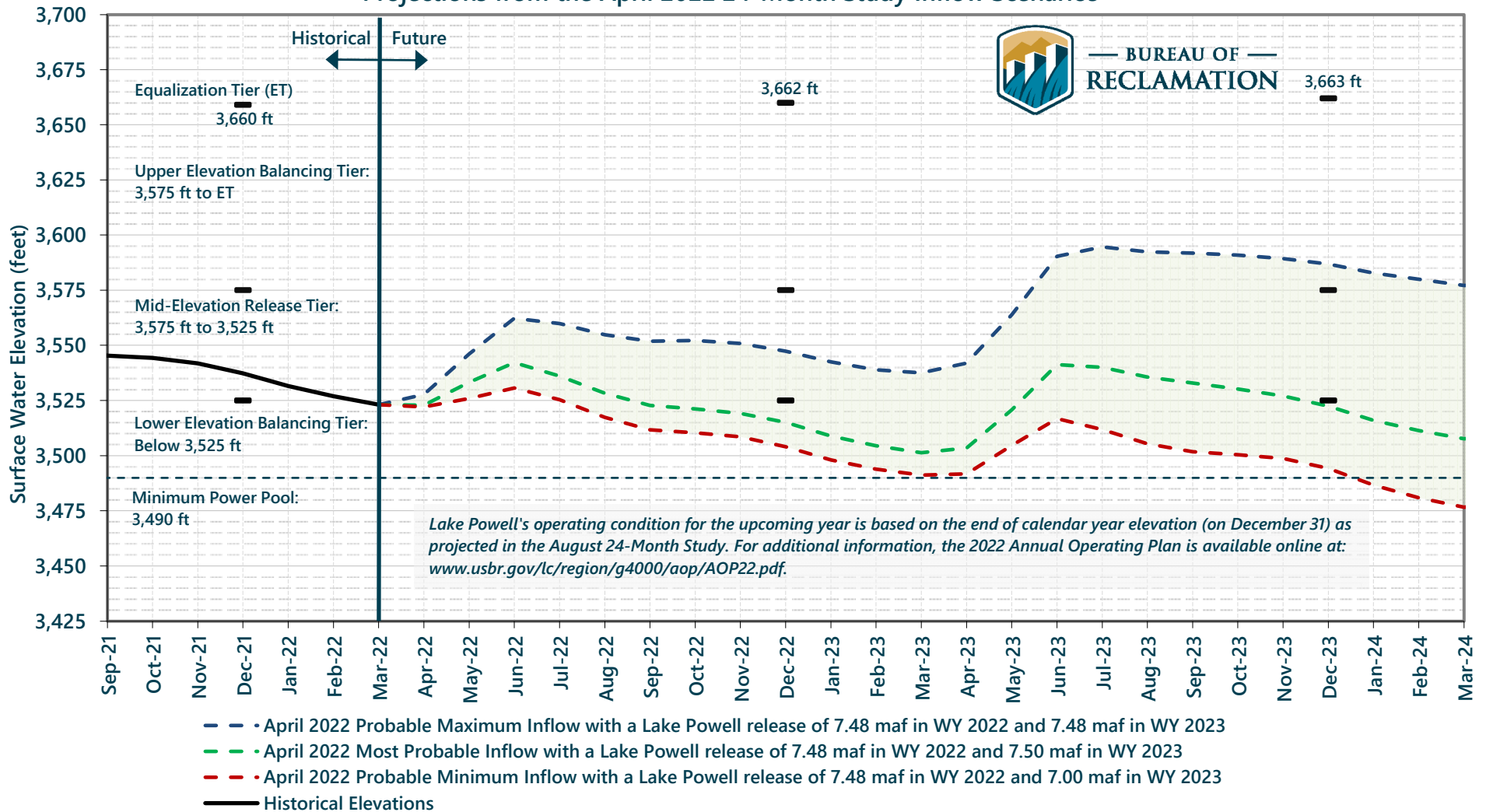
[https://www.usbr.gov/lc/region/g4000/2021\\_MOU.pdf](https://www.usbr.gov/lc/region/g4000/2021_MOU.pdf).

The Upper Basin Hydrology Summary is available online at:

[https://www.usbr.gov/uc/water/crsp/studies/24Month\\_04\\_ucb.pdf](https://www.usbr.gov/uc/water/crsp/studies/24Month_04_ucb.pdf).

# Lake Powell End of Month Elevations

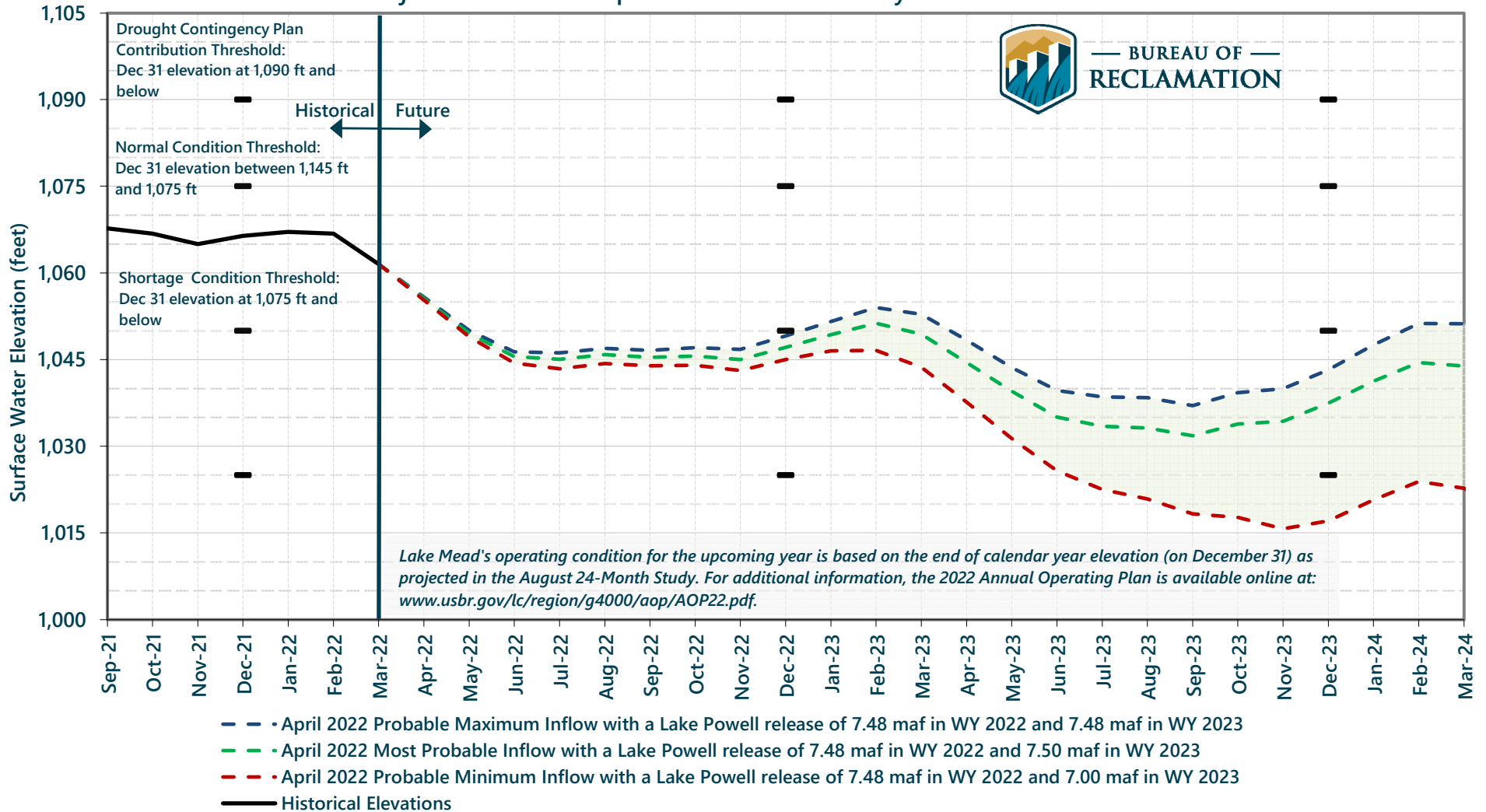
Projections from the April 2022 24-Month Study Inflow Scenarios



The Drought Response Operations Agreement (DROA) is available online at: <https://www.usbr.gov/dcp/finaldocs.html>.

# Lake Mead End of Month Elevations

Projections from the April 2022 24-Month Study Inflow Scenarios



Lake Mead's operating condition for the upcoming year is based on the end of calendar year elevation (on December 31) as projected in the August 24-Month Study. For additional information, the 2022 Annual Operating Plan is available online at: [www.usbr.gov/lc/region/g4000/aop/AOP22.pdf](https://www.usbr.gov/lc/region/g4000/aop/AOP22.pdf).

The Drought Response Operations Agreement (DROA) is available online at: <https://www.usbr.gov/dcp/finaldocs.html>.