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INSIGHT

Responding to Drought in the Colorado River Basin

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The Colorado River Basin covers more than 246,000 square miles in seven U.S. states and Mexico. Basin waters are governed by multiple documents, known collectively as the *Law of the River*. The Colorado River Compact of 1922 established the framework to apportion water supplies between the river's Upper and Lower Basins, with each basin allocated 7.5 million acre-feet (MAF) annually; a subsequent agreement also provided for releases to Mexico (**Figure 1**). The Bureau of Reclamation (Reclamation) plays a prominent role in basin water management due to the many congressionally authorized projects in the basin.

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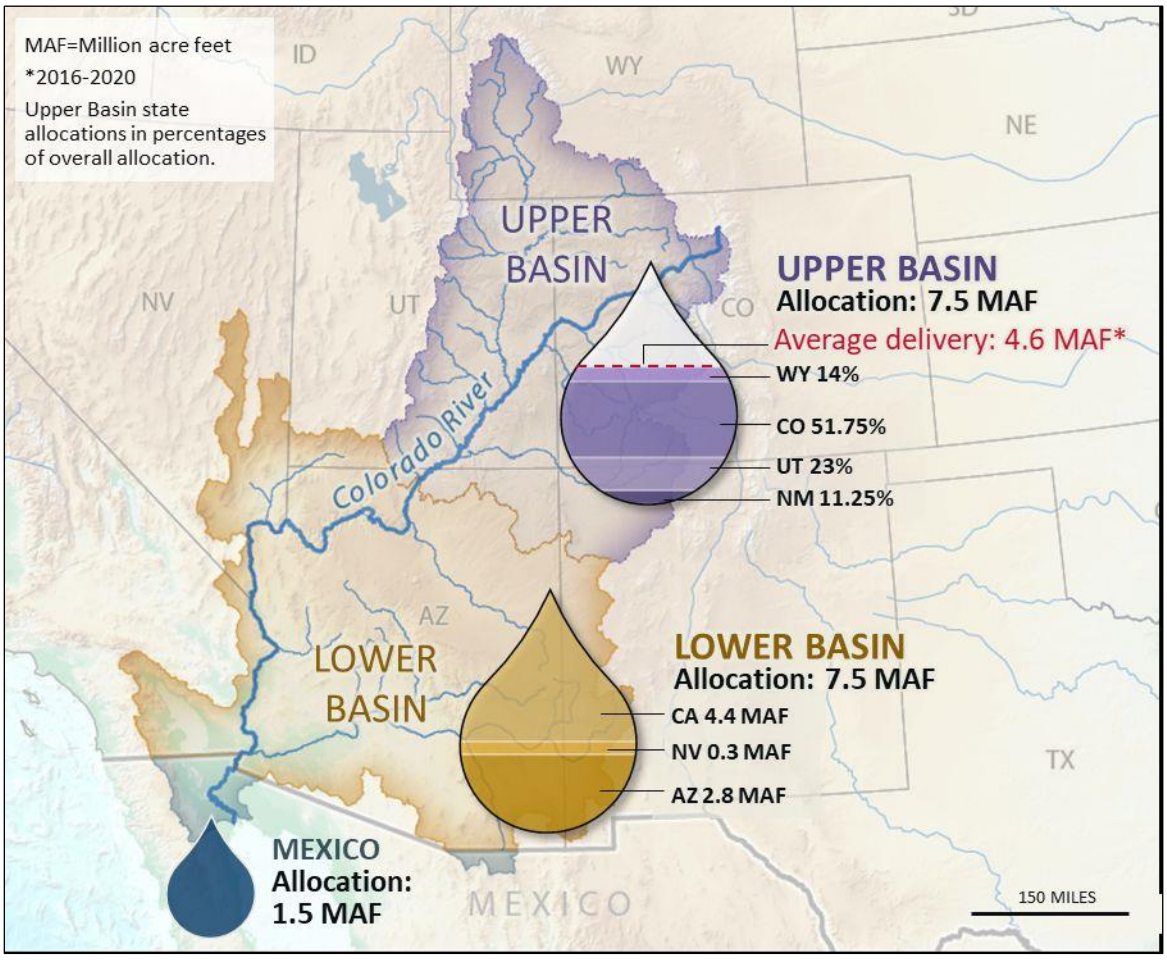
Figure 1. Colorado River Basin Allocations

(allocations in MAF)



Source: CRS, using data from U.S. Geological Survey Esri Data & Maps, 2017, Central Arizona Project, and Esri World Shaded Relief Map.

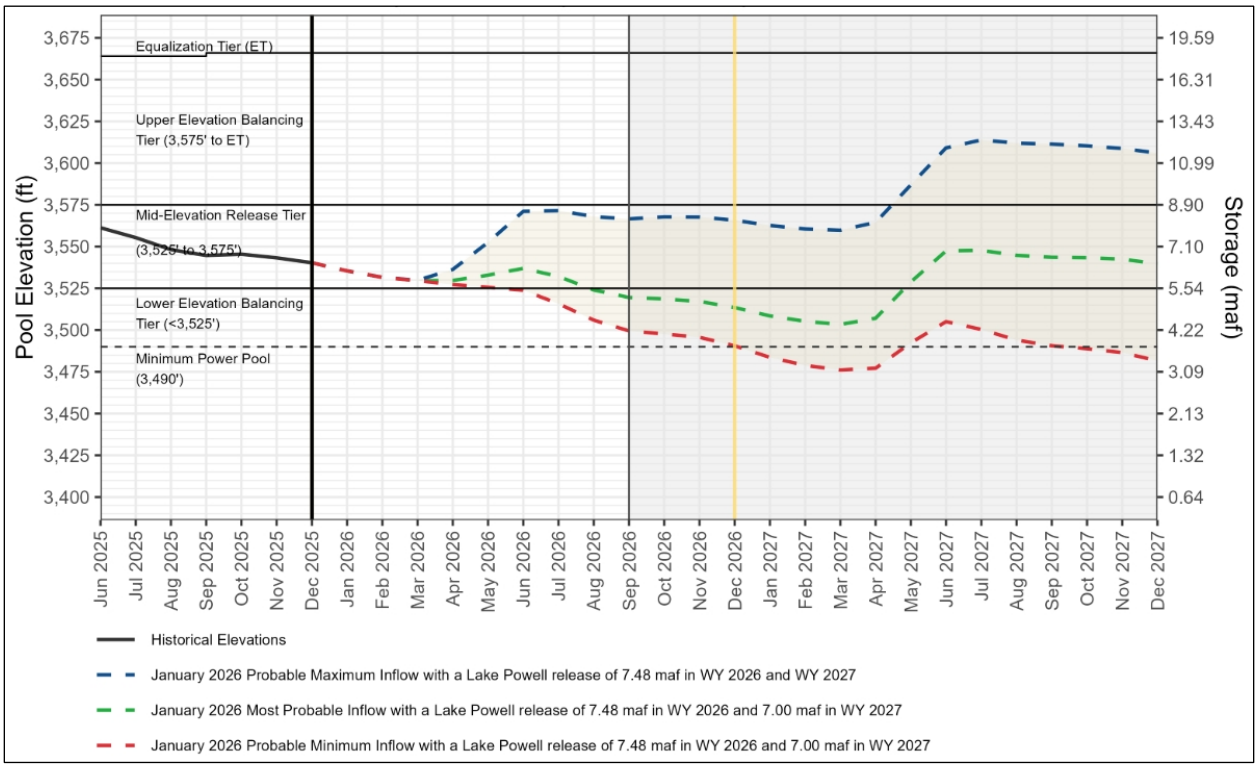
Notes: Due to uncertainty about how much water would remain after meeting obligations to the Lower Basin and Mexico, most Upper Basin compact apportionments are in terms of percentages.

When federal and state governments approved the Colorado River Compact of 1922, it was assumed that river flows would average 16.4 MAF per year. Actual annual flows from 1906 to 2024 were approximately 14.6 MAF and have averaged significantly less (12.4 MAF) since 2000. Demand has exceeded these amounts in most years, and studies project lower flows in the future.

The imbalance between water supplies and demand has depleted storage in the basin's two largest reservoirs—Lake Powell and Lake Mead—and threatens water supplies for millions in the Southwest. Storage at both reservoirs is near the lowest levels on record. Reclamation makes operational decisions for basin reservoirs based on 24-month studies, which project conditions for upcoming years (**Figure 2**, **Figure 3**).

Figure 2. Lake Powell Storage Elevations and Projections

(January 2026 inflow scenarios)

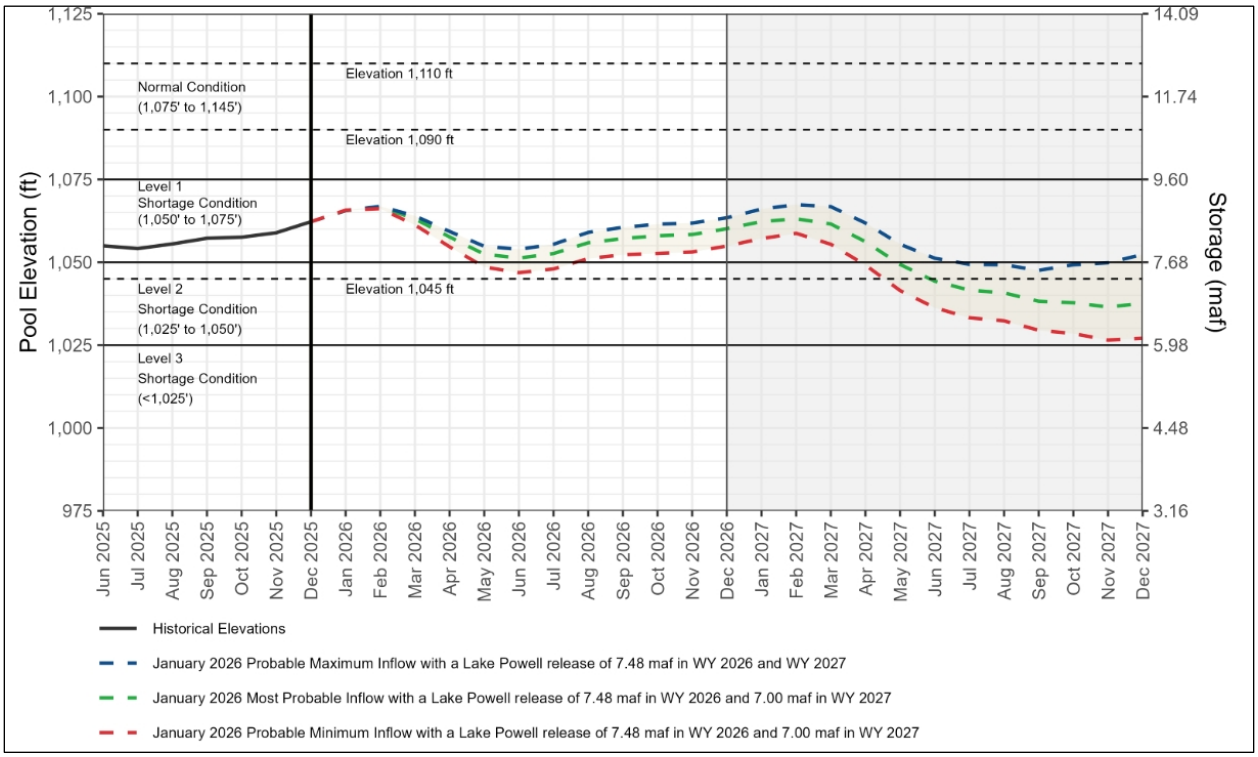


Source: Bureau of Reclamation, "24-Month Study Projections."

Notes: maf = million acre-feet; WY = water year.

Figure 3. Lake Mead Storage Elevations and Projections

(January 2026 inflow scenarios)



Source: Bureau of Reclamation, "24-Month Study Projections."

Notes: maf = million acre-feet; WY = water year.

Mitigating Drought in the Colorado River Basin

Previous efforts to improve the basin's water supply outlook resulted in agreements in 2003, 2007, and 2019 that generally built on one another. Most prominently, they tied Lower Basin delivery reductions to Lake Mead levels and implemented a framework to coordinate Upper Basin operations and protect hydropower generation at Glen Canyon Dam.

Despite these efforts, water supplies have continued to decrease. Pursuant to the aforementioned agreements, since 2020 Reclamation has curtailed water deliveries to Arizona and Nevada based on Lake Mead levels. It made operational changes in the Upper Basin to move water into Lake Powell in 2021 and 2022.

In 2022, Reclamation initiated a "near-term" operational revision process aiming to conserve 2.0-4.0 MAF between 2023 and 2026. The bureau announced a basin state consensus under this process that it finalized on May 6, 2024. The agreement added to existing efforts to achieve a total of 3.0 MAF in Lower Basin conservation before the end of 2026. Of this conservation, 2.3 MAF is to be compensated by the federal government out of $4.0 billion in Reclamation drought response funds in P.L. 117-169 (commonly referred to as the Inflation Reduction Act [IRA]). In 2026, Lower Basin states are expected to conserve 1.3 MAF: 533,000 AF under the 2007 and 2019 agreements and 770,000 AF from IRA conservation. Some studies estimate that 2.4-3.2 MAF/year in reductions are needed to stabilize the system in the long term.

Post-2026 Operations

Most of the aforementioned agreements expire at the end of 2026; thus, Reclamation is analyzing post-2026 operational alternatives for the system. In 2024, Upper and Lower Basin states submitted competing "long-term" operational plans to Reclamation. The Lower Basin's plan proposed using total basin storage (i.e., not Lake Mead volume) to dictate deliveries, with cuts in the driest conditions shared between the Upper and Lower Basins. The Upper Basin's plan would cut deliveries only in the Lower Basin and proposes Lake Powell water releases based in part on that lake's storage conditions (i.e., in lieu of compact-required releases).

Absent a consensus among Upper and Lower Basin states, in late 2024 Reclamation released initial alternatives to be analyzed in a draft environmental impact statement (EIS) for post-2026 operations. In January 2026, Reclamation released a draft EIS with five alternatives (**Table 1**). Most alternatives would impose new Lower Basin delivery reductions in excess of recent levels and alter the basis and range of Lake Powell releases, among other things. The alternatives differ significantly in their operational triggers and the magnitude/distribution of reductions. While none of the alternatives propose mandatory Upper Basin delivery reductions, some recommend Upper Basin water conservation targets. Reclamation has noted its preference for a consensus approach among basin states but reiterated its willingness to act unilaterally to make changes.

Table 1. Bureau of Reclamation Post-2026 Colorado River Operational Alternatives

(alternatives in January 2026 draft EIS)

Alternative	Range/Basis for Lower Basin Delivery Reductions	Lake Powell Releases
No Action	Up to 600,000 AF/year Based on Lake Mead elevation, distributed based on water rights priority	8.23 MAF/year Target under most circumstances
Basic Coordination	Up to 1.5 MAF/year Based on Lake Mead elevation, distributed based on water rights priority	7.0-9.5 MAF/year Range based on Lake Powell elevations
Enhanced Coordination	1.3 to 3.0 MAF/year Based on Lake Mead/Lake Powell combined storage, distributed pro rata	4.7-10.8 MAF/year Range based on combination of Lake Mead/Powell elevations and 10-year basin hydrology
Maximum Operational Flexibility	Up to 4.0 MAF/year Based on system storage and distributed based on water rights priority and state shares of up to 1.5 MAF	5.0-10.0 MAF/year Range based on total system storage and recent hydrology
Supply Driven	Up to 2.1 MAF/year Based on Lake Mead elevation and distributed as state-based shares up to 1.5 MAF based on either (1) water rights priority or (2) pro rata shares	5.0-10.0 MAF/year Range based on 65% of three-year average natural flows from Upper to Lower Basin at Lees Ferry, AZ

Source: Bureau of Reclamation, *Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead*, Draft Environmental Impact Statement, January 2026.

Notes: MAF/year = million acre-feet per year.

Author Information

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