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INSIGHT

Responding to Drought in the Colorado River Basin

Updated May 7, 2026

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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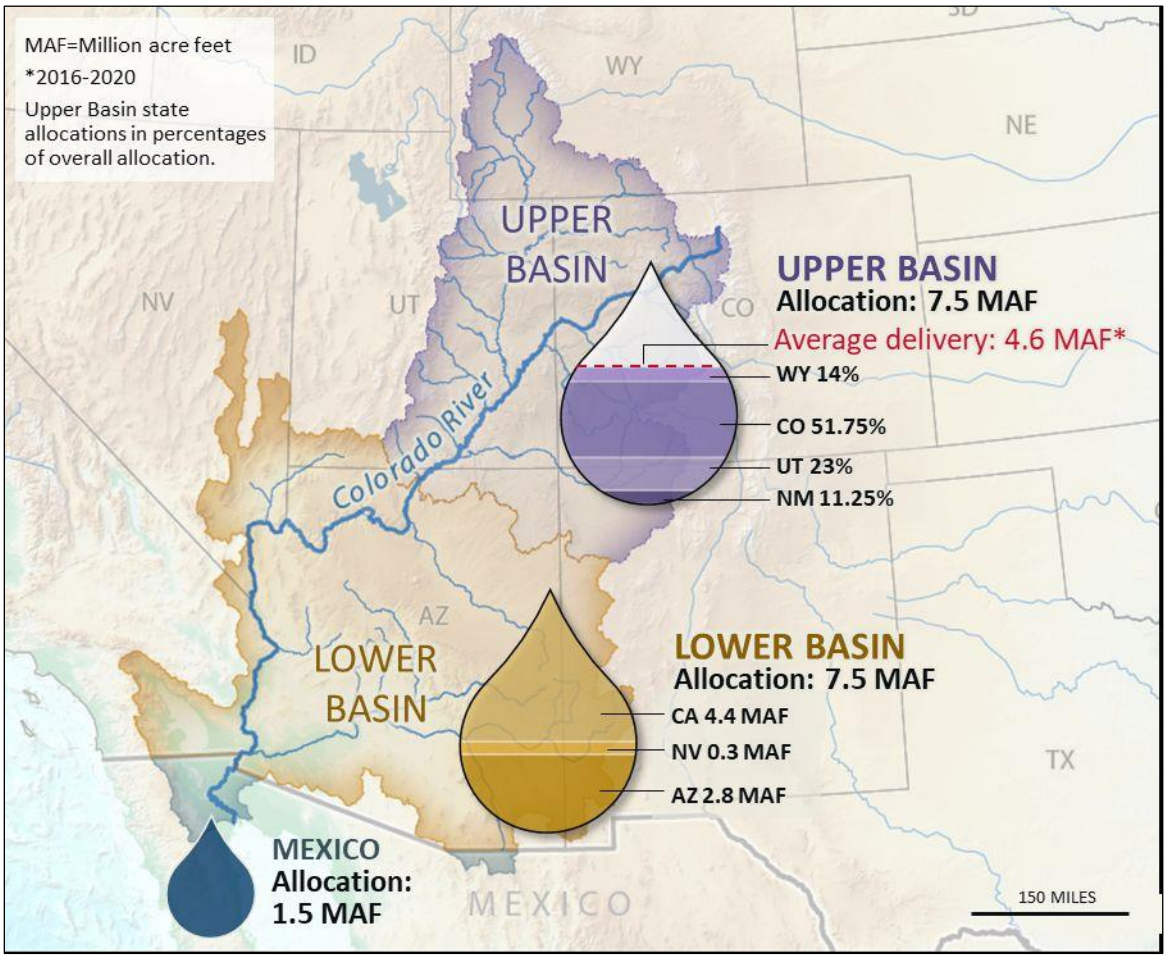
IN11982

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.

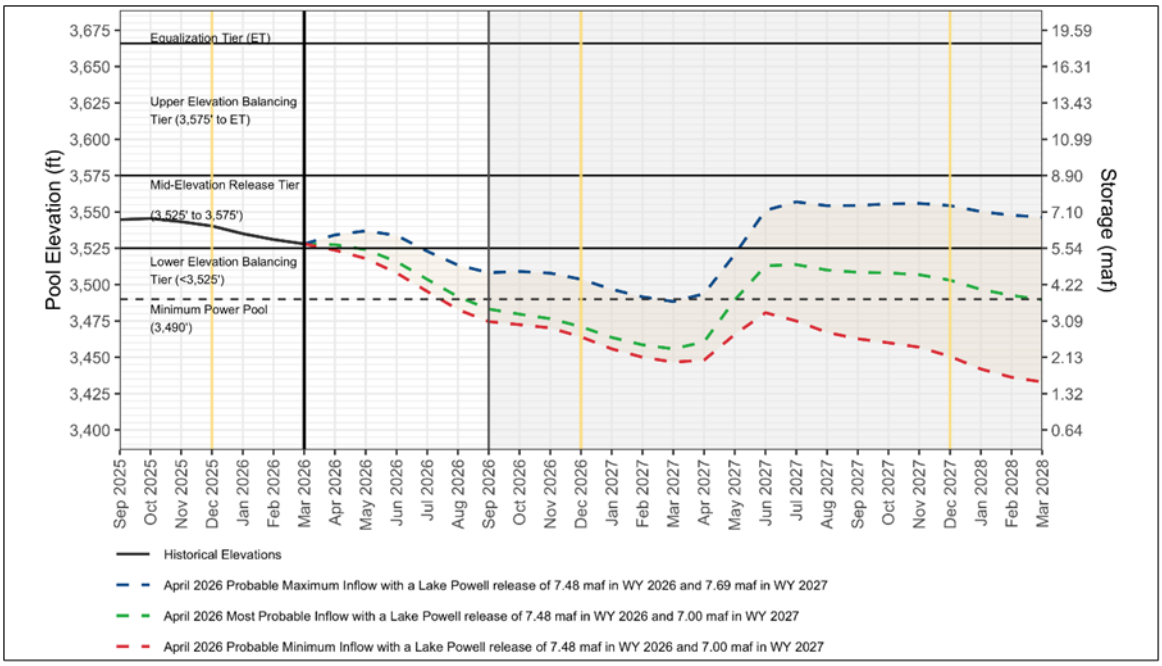
Notes: Due to uncertainty about how much water would remain after meeting obligations to the Lower Basin and Mexico, most Upper Basin compact apportionments are in terms of percentages.

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 in the Upper Basin and Lake Mead in the Lower Basin—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**). Due to poor hydrology in 2026, storage in Lake Powell has the potential to reach critically low levels.

Figure 2. Lake Powell Storage Elevations and Projections

(April 2026 inflow scenarios)

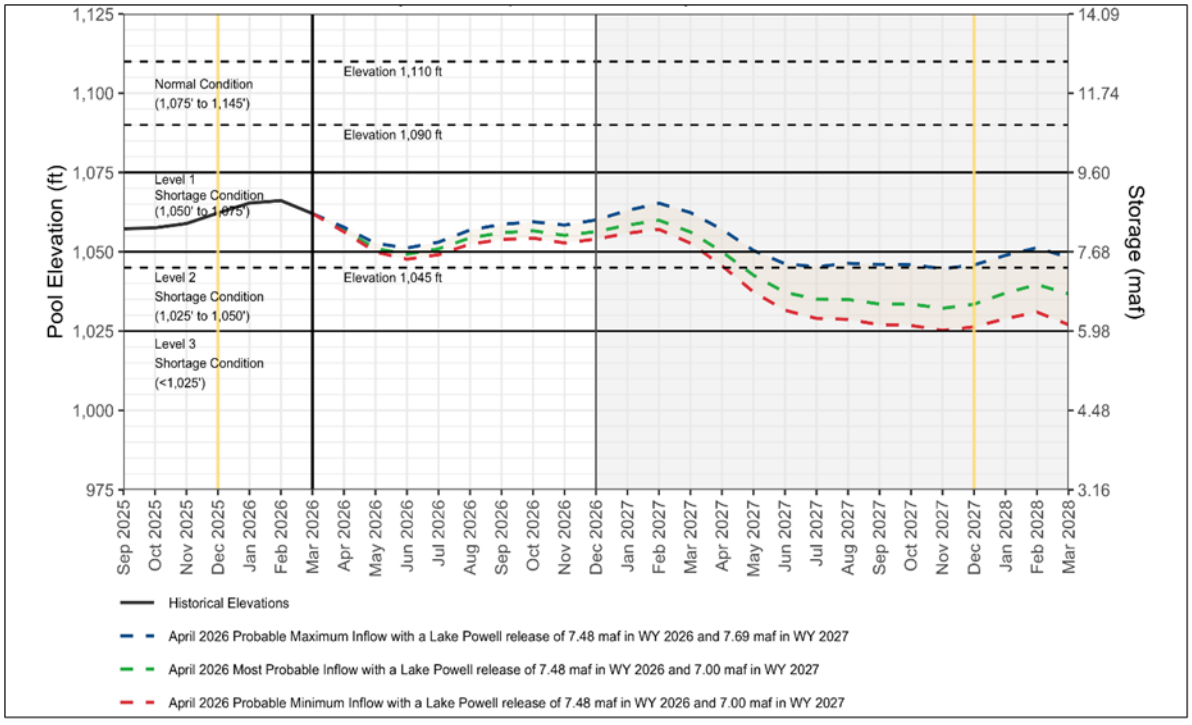


Source: Bureau of Reclamation, "24-Month Study Projections."

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

Figure 3. Lake Mead Storage Elevations and Projections

(April 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, 2019, and 2024 that generally built on one another and reduced water deliveries. These agreements tied Lower Basin delivery reductions to decreasing Lake Mead levels and implemented a framework to coordinate Upper Basin operations so as to protect Lake Powell from reaching critically low levels.

Since 2020, Reclamation has curtailed water deliveries to Arizona and Nevada based on Lake Mead levels. It also made operational changes in the Upper Basin to move water from upstream reservoirs into Lake Powell in 2021 and 2022, and it is implementing these operations again in 2026.

In 2026, Lower Basin states are expected to conserve a total of 1.3 MAF: 533,000 AF in uncompensated reductions/savings under prior agreements and 770,000 AF under the 2024 plan (including federally compensated water delivery reductions that were approved by Congress in P.L. 117-169, commonly referred to as the Inflation Reduction Act [IRA]). Despite these reductions, experts agree that more cutbacks are still needed. 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 existing water conservation agreements expire at the end of 2026, thus Reclamation is analyzing post-2026 operational alternatives for the system. In 2024, the Upper and Lower Basin states submitted competing "long-term" operational plans to Reclamation; each plan proposed different methods and allocations for Colorado River reductions.

Absent a consensus among Upper and Lower Basin states, 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 to the Lower Basin, among other things. The alternatives differ significantly in their operational triggers and the magnitude/distribution of reductions, and several of them would require congressional approval to be implemented. 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 and Basis for Total Lower Basin Delivery Reductions	Range and Basis for 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 elevation

Enhanced Coordination	Up 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 (three-year) 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.

On May 1, 2026, the Lower Basin states announced a new 2026-2028 operations proposal. Under the proposal, they would collectively contribute reductions of 1.25 MAF/year and Mexico would contribute 250,000 AF/year (i.e., similar to amounts initially proposed under comparable conditions in the 2024 Lower Basin post-2026 proposal, but less than the draft EIS options) in 2027 and 2028. This would be coupled with a new 700,000 AF (total through 2028) Lower Basin conservation program that would be funded by a federal/state cost-share, resulting in total savings of 3.2 MAF through 2028. The proposal contains other operational assumptions and does not specify how much new federal funding would be needed to implement the conservation program. For its part, the Upper Basin has opposed efforts that do not reflect a basin-wide consensus and has reiterated its prior calls for mediation.

Author Information

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