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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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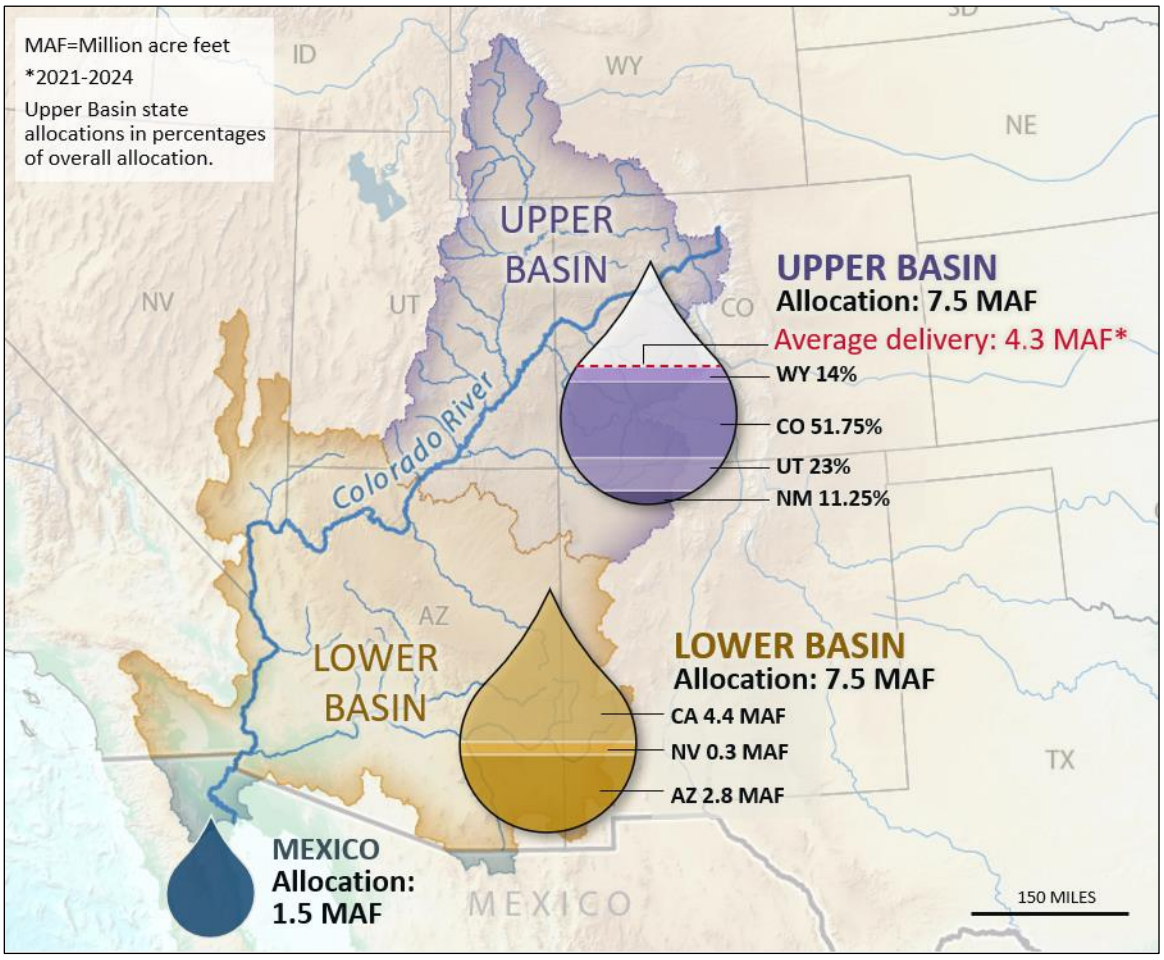
Figure 1. Colorado River Basin Allocations

(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.

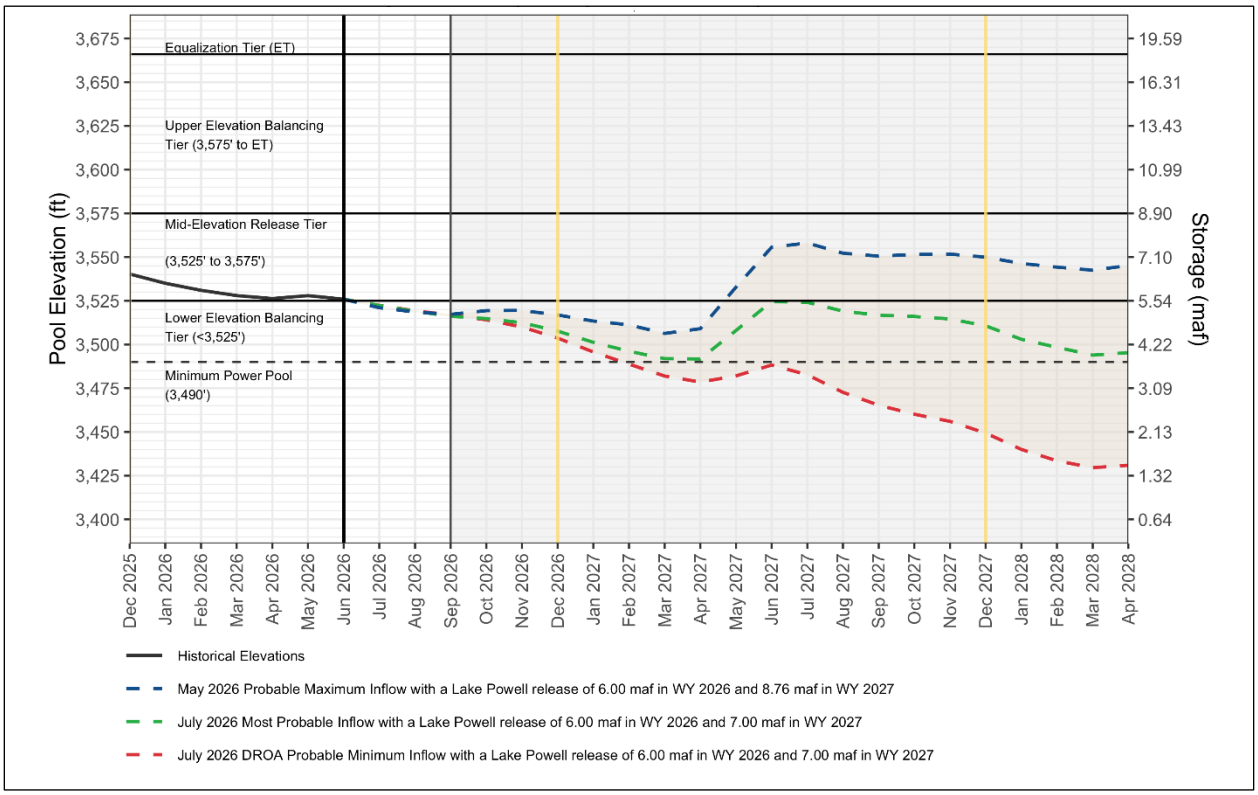
Notes: Due to uncertainty about how much water remains after meeting obligations to the Lower Basin and Mexico, most Upper Basin compact apportionments are in terms of percentages. 2021-2024 is the most recent reporting available for Upper Basin deliveries.

When federal and state governments approved the compact, they assumed that river flows would average 16.4 MAF/year. Actual annual flows from 1906 to 2024 were approximately 14.6 MAF and averaged significantly less (12.4 MAF) from 2000 through 2024. 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 these reservoirs is at historically low levels. Reclamation makes operational decisions for basin reservoirs based on 24-month studies, which project future conditions (**Figure 2**, **Figure 3**).

Figure 2. Lake Powell Storage Elevations and Projections

(May and July 2026 inflow scenarios)

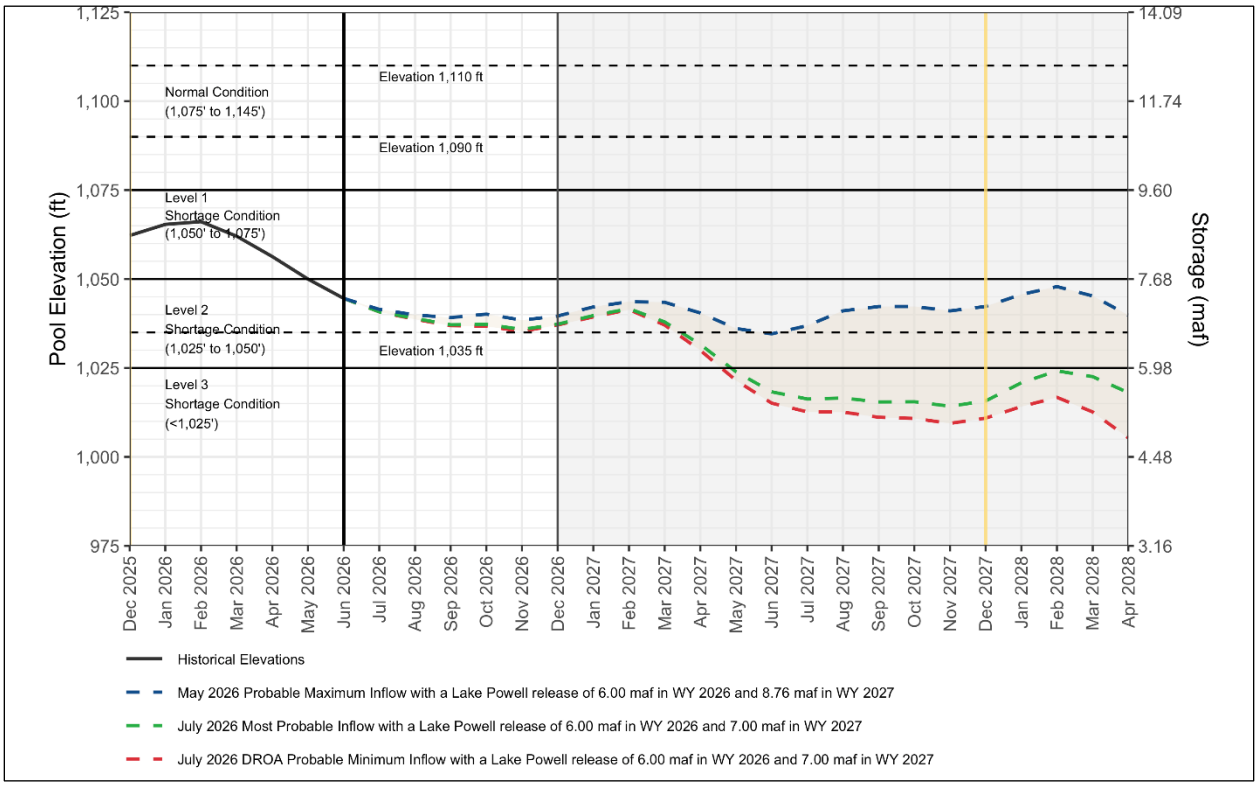


Source: Bureau of Reclamation, "24-Month Study Projections."

Notes: maf = million acre-feet; WY = water year; DROA = Drought Response Operations Agreement.

Figure 3. Lake Mead Storage Elevations and Projections

(May and July 2026 inflow scenarios)



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

Notes: maf = million acre-feet; WY = water year; DROA = Drought Response Operations Agreement.

Mitigating Drought in the Colorado River Basin

Previous efforts to improve the basin's water supply outlook resulted in 2003, 2007, 2019, and 2024 agreements that tied Lower Basin delivery reductions to Lake Mead levels and coordinated Upper Basin operations to protect Lake Powell from critically low levels. Pursuant to those agreements, Reclamation has curtailed water deliveries to Arizona and Nevada based on Lake Mead levels, and some users have conserved water on a voluntary basis. Reclamation also moved Upper Basin waters from upstream reservoirs to Lake Powell in 2021, 2022, and 2026.

In 2026, Lower Basin states will conserve an estimated 1.3 MAF, including roughly 533,000 AF in uncompensated reductions under prior agreements and 770,000 AF in federally compensated water delivery reductions approved in P.L. 117-169 (popularly known as the Inflation Reduction Act, or IRA). However, some studies estimate that reductions of 2.4-3.2 MAF/year 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 undertook a process analyzing post-2026 operational alternatives for the system. In 2024, Upper and Lower Basin states submitted competing operational plans to Reclamation; each plan proposed different methods and allocations for Colorado River reductions. The Lower Basin proposed cuts in both basins and tying Lake

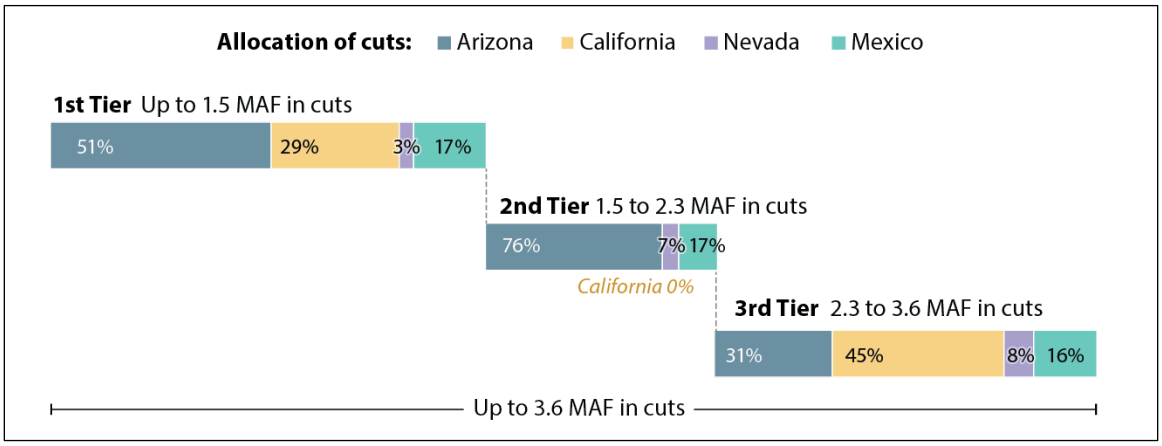
Powell releases to system storage and Upper Basin consumption, among other things. The Upper Basin proposed additional Lower Basin cuts, no mandatory cuts for its users, and no major changes to the basis for Lake Powell releases.

In early 2026, Reclamation published a draft EIS with five alternatives. In July 2026, Reclamation announced its preferred alternative in a Final EIS (FEIS), stipulating that going forward the basin would be operated in two-year intervals. This differed from the draft EIS plan to lay out long-term operations of 20 years.

One area of the FEIS receiving attention is Lower Basin state delivery reductions. Reclamation's preferred alternative distributes 2027-2028 shortages in three potential tiers (**Figure 4**): The first 1.5 MAF in shortages require Lower Basin state delivery reductions of 1.25 MAF/year, distributed based on a previous 2026-2028 Lower Basin proposal. Under the preferred alternative, Reclamation would reduce deliveries further if Lake Mead drops to critically low levels, with different distributions of cuts assumed for reductions tiers of 1.5 to 2.3 MAF/year and 2.3 to 3.6 MAF/year, respectively. The latter reductions would be implemented based on existing water rights priorities. Maximum cumulative annual shortages for Lower Basin states for all tiers combined under the preferred alternative could reach as high as 1.79 MAF/year for Arizona, 1.01 MAF/year for California, 206,670 AF/year for Nevada, and 599,694 AF/year for Mexico.

Figure 4. 2027-2028 Lower Basin Cuts Under 2026 FEIS Preferred Alternative

Distribution of Annual Delivery Shortage Volumes for U.S. States and Mexico



Source: Congressional Research Service, based on Bureau of Reclamation, *Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead—Final Environmental Impact Statement*, https://www.usbr.gov/ColoradoRiverBasin/post2026/final-eis/index.html.

Notes: MAF = million acre-feet. Shortages are tied to Lake Mead elevation, as outlined in Reclamation's FEIS. The FEIS assumes Mexico cuts that have yet to be negotiated/announced.

The preferred alternative also lays out numerous other operational elements, including allowing for annual releases from Glen Canyon Dam as low as 5.0 MAF/year if Lake Powell is projected to decline below 3,500 feet. The FEIS also provides for releases from other federal reservoirs in the Upper Basin to protect Glen Canyon Dam infrastructure, assumes voluntary conservation of 200,000 AF/year from the Upper Basin, and allows for additional conserved Lower Basin waters to be stored in Lake Mead, among other things.

The two-year operating plan in the FEIS requires nonfederal approvals to implement but does not assume enactment of new federal authorities. This could change in future two-year plans. While states and some Members of Congress have called for federal funding to mitigate the effect of water delivery reductions on users (i.e., similar to previous IRA funding), no such funding has been enacted.

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