

# THE BOND BUYER

## Utilities tighten valves under Colorado River drought plan

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One water rights attorney views the recently approved Colorado River [Drought Contingency Plan](#) as an opportunity for the municipal bond market.

"Now that the agreement's been signed, everybody's looking at augmentation," said Paul Orme, a water rights specialist at the Arizona law firm Salmon Lewis & Weldon who served on a steering committee for the state. "I can certainly see a role for municipal finance in that."



Falling water levels at Lake Mead, shown in 2015 with Hoover Dam in the background, would trigger the Drought Contingency Plan. **Bloomberg News**

Projects such as desalination of brackish groundwater, repair of leaking pipelines and recycling of wastewater could be funded by municipal bonds.

Driven by a two-decade drought that federal authorities have called the worst in recorded history, the contingency plan, hashed out among the stakeholders, approved by Congress and signed into law this month, was designed to stabilize water levels in the Lake Mead and upstream Lake Powell reservoirs following years of drought and excessive water withdrawals. The plan will manage water shortages on the Colorado River until 2026.

“People understood pretty quickly that there were serious problems and that if Lake Mead kept crashing, there was not a plan to deal with the crisis,” said Jack Schmidt, a Utah State University professor who heads the Center for Colorado River Studies. “Still, this is just a stopgap measure.”

The plan makes conservation more urgent for water utilities that tap the 1,400-mile-long river to serve nearly 40 million people.

“There’s no question that this places a big, big focus on using water more efficiently and especially using agricultural water more efficiently,” Schmidt said. “In the Upper Basin, a substantial amount of money has been spent on pilot projects to conserve water and route more to agriculture.”

Some water credits might experience ratings pressure if rate increases can’t keep pace with the cost of capital projects needed to develop alternative water sources.

“I think eventually all the pressures on water supplies will result in rate increases, because we have to come up with other ways to supply water,” said Jeffrey Kightlinger, general manager of the Metropolitan Water District of Southern California, which supplies water to 26 member agencies in six southern California counties.

The DCP is the latest twist in the 1922 Colorado River Compact, which allotted 7.5 million acre-feet of water to Lower Basin states from Upper Basin states on 10-year rolling terms. Signed at a time when the river was unusually high, the compact has required modification amid population and agricultural growth.

The drought contingency plan was drawn up between the Upper Basin states of Colorado, Utah, Wyoming and New Mexico, and the Lower Basin states of California, Nevada and Arizona. Mexico, which can claim only about 10% of the river’s flow under a 1944 treaty with the U.S., has agreed to keep its unneeded water in Lake Mead, Schmidt said.

The new agreement aims to ensure that lakes Mead, Powell and Havasu will not reach such low capacity that they cannot deliver water or produce hydropower.

The drought plan was expected to go into effect in 2020 as Mead fell to 1,090 feet above sea level. But a heavier-than-expected snowpack in the Rocky Mountains this year is likely to provide a reprieve for users in the Lower Basin, particularly Arizona, with water rights junior to those of California.

If Lake Mead had fallen below the first critical threshold, Arizona would be required to keep 192,000 acre-feet of water on the other side of Hoover Dam, a move that was voluntary in previous years. The plan requires more severe restrictions on water flow as Mead's elevation falls.

Current total Colorado River system storage is about 45% of full capacity, according to the Arizona Department of Water Resources. In a worst-case scenario, farmers in Pinal County, Arizona, would have to fallow 40% of their land, said ADWR spokeswoman Sally Stewart Lee.

"It would be a serious situation for the state," Lee said.

Arizona would see the greatest impact of the Lower Basin states, according to a report from Fitch Ratings. The AA-rated Central Arizona Water Conservation District, operator of the canals of the Central Arizona Project, would take the largest cut if water reductions are triggered in a drought.

Fitch does not anticipate near-term credit effects from the contingency framework outlining water cutbacks in Arizona, Nevada and California. For some wholesale water suppliers and municipal utilities, particularly in Arizona, cuts in allocations could lead to rate increases tied to the rising cost of purchased water and could eventually pressure rate affordability.

If water flowing through CAP canals is curtailed, utilities in the Phoenix area would have to turn to groundwater, a precious resource that is heavily regulated.

"Generally, the Arizona Groundwater Management Act prohibits developers from breaking ground in populated areas unless they can prove they have enough water to supply homeowners for 100 years," said Sherman & Howard attorney Zach Sakas. "That rule is applicable to groundwater. Nevertheless a shortage of river water that supplies other uses, such as agriculture, could put more pressure on groundwater supplies."

Although the trigger cuts would not significantly impact California issuers in the near term, Fitch said, continued drought conditions on the Colorado coupled with

an uncertain supply funneled down from northern California's delta tunnels could stress future supplies.

Nevada gets 90% of its water through drawdowns at Lake Mead, but Fitch said its anticipated reductions are manageable because the Southern Nevada Water Authority has completed an intake pipe that can draw from 1,000 feet below the surface. In drought conditions, the Las Vegas valley would still be supplied with water. The region also only has to reduce its water consumption by 3% now and 10% in severe drought conditions.

Under the proposed drought plan, Arizona and Nevada would absorb the first cuts and California would reduce its withdrawals from Lake Mead when the reservoir's elevation drops to 1,045 feet.

Though Fitch singled out Arizona as likely to see rate increases in the near term, higher water costs could be coming for everyone.

"Right now, imported supplies are the cheapest water we have. It might have to come down from the Rocky Mountains, but it's the cheapest," Kightlinger said.

"The next cheapest is the supply that comes down from northern California," he said. "The infrastructure was built generations ago and we have economies of scale."

Technology such as desalination is much more expensive, but Met has to fund them and use them and that will increase rate pressure, he said.

The Southern Nevada Water Authority doesn't anticipate more rate increases after raising them over the past five years to build the new \$817 million intake tunnel, said Branson Mack, an authority spokesman.

The water authority, the primary water supplier to most of the 2 million residents of Clark County, also has an inflation-triggered rate increase that took effect this year, Mack said. SNWA's rates are considered to be affordable giving it some flexibility if it needs to raise rates, S&P Global Rating analysts said in a Feb. 9 report.

A lawsuit against Southern California's MWD underscores long-running tension over water supplies in the region.

On April 16, the day President Trump signed federal legislation to implement the contingency plan, the Imperial Irrigation District of southeast California filed a lawsuit in Los Angeles Superior Court against the MWD alleging violations of the California Environmental Quality Act. Imperial wants the court to suspend approvals of the plan until Met can conduct a CEQA analysis.

“I think the lawsuit is highly speculative, because it is essentially claiming Met violated CEQA because it didn’t conduct a study into how it might make up any lost water Met might need to make up with the drought contingency plan,” said Brian Gray, a senior fellow at the Water Policy Center at the Public Policy Institute of California and professor emeritus at University of California Hastings College of Law in San Francisco. “It is speculative, because Met has a multiplicity of sources of water.”

The MWD has been working to lessen its dependence on imported water from northern California and the Colorado River since the 1980s, Gray said. In 1990, two-thirds of its water was imported and one-third came from local sources. MWD is on track to reverse that to one-third imported by 2030, Kightlinger said.

“There is no point in the court ordering Met to do what they do already,” Gray said. “It would be difficult for the court to point to things Met isn’t doing already, which is managing its diverse water portfolio and anticipating for drought contingencies.”

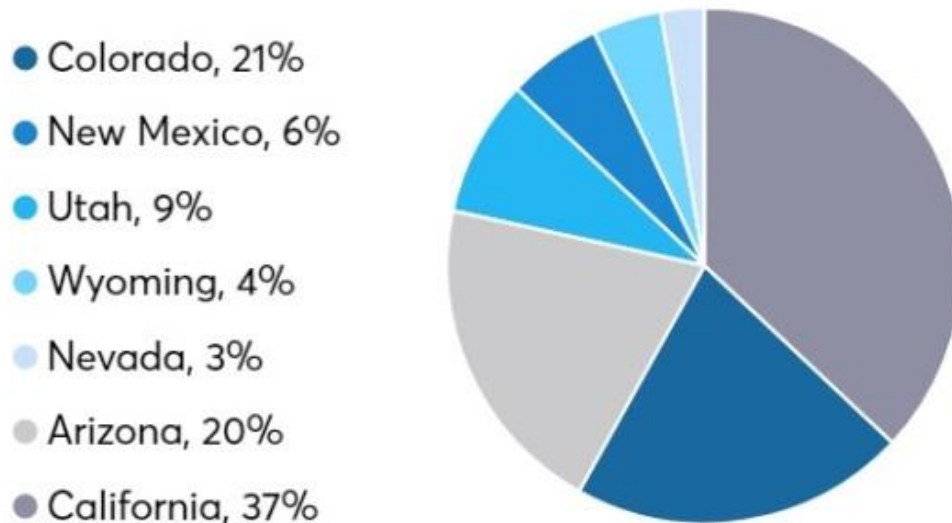
The IID, the river’s largest user, declined to participate in the agreement because it wanted the federal government to provide \$200 million in matching funds for a \$400 million project to deal with environmental issues posed by a shrinking Salton Sea. The area has triple the asthma rates of the rest of the state because of dust storms blowing off the briny lake, said Robert Schettler, an IID spokesman.

Though the money Imperial wanted may be for a good cause, Kightlinger said that Congress was not willing to find \$200 million for the Salton Sea, because the Colorado River plan does not affect the Salton Sea.

If the states couldn’t reach a decision the Secretary of the Interior was going to establish a plan for them. Met agreed to more greatly reduce its own share of water to make up for the IID’s decision not to participate.

“The logic in going forward without IID was that the Drought Contingency Plan couldn’t wait for the Salton Sea,” said Henry Martinez, IID general manager. “This legal challenge is going to put that logic to the test and the focus will now be where it should have been all along — at the Salton Sea.”

# States' share of Colorado River



Source: U.S. Department of Interior

California's share of the Colorado is the largest of all the states at 4.4 million acre-feet, or more than a quarter of the river's average annual flow. An average California household uses between one-half and one acre-foot of water per year for indoor and outdoor use.

"When they divided up the water in 1922, it was seen as laughable that southern Nevada received 300,000 acre-feet, because they thought the most that would be built in the middle of the desert was a gas station. Las Vegas was never imagined," Kightlinger said. "Nevada has really been diligent in their conservation efforts, because they grew up to the full amount and had to do something about demand."

Strong management is why the Southern Nevada Water Authority has met the community's water needs even as Las Vegas has grown, Mack said.

"We are providing the community with less water today than we did before the drought that started in 2000," Mack said. "We maintain a 50-year water resource plan."

The Las Vegas area receives 90% of its water from the Colorado River and Lake Mead with the remainder from ground water in the Las Vegas valley, Mack said.

The next step, now that the plan has been approved by Congress and signed by the President, is for the states to sign the agreement. A date hasn't been set, but Mack said he expects the signing will occur in the near future.

Gray called the plan a very constructive first step in addressing a long-term problem. Its seven-year length gives the states time to come up with a longer-range plan, Kightlinger said.

The plan goes far enough for now, Gray said, but if the Colorado River reaches a point that it's short of water most years, additional adjustments will need to be made.

"I think we are going to see changes in land and water-use patterns including fallowing land — and as the century progresses, we are going to have to see significant changes in water use, water efficiency and water allocation," Gray said.