

# Water cutbacks set to begin under deal designed to 'buy down risk' on Colorado River

[Ian James](#) Updated 11:43 a.m. MT Dec. 11, 2019

Of the plans signed on May 20, 2019, Federal Reclamation Commissioner Brenda Burman says, "It's time to implement." Sean Logan, The Republic | azcentral.com

Arizona, Nevada and Mexico will start taking less water from the Colorado River in January as a hard-fought set of agreements kicks in to reduce the risk of reservoirs falling to critically low levels.

The two U.S. states agreed to leave a portion of their water allotments in Lake Mead under a deal with California called the Lower Basin Drought Contingency Plan, or DCP, which the states' representatives [signed at Hoover Dam in May](#).

California agreed to contribute water at a lower trigger point if reservoir levels continue to fall. And Mexico agreed under a separate accord to take steps to help prop up Lake Mead, the nation's largest reservoir near Las Vegas, which now sits 40% full after a nearly 20-year run of mostly dry years.

The agreements, including another deal in the river's Upper

Basin, increase the odds of Western states making it through the next seven years without reservoir levels crashing. But researchers examining the latest climate projections have also warned of the possibility that declines in the river's flow could force water curtailments in the coming years, and they've suggested looking at options to reduce risks.

For the first time since signing the drought contingency deals, representatives of seven states will meet this week at a conference in Las Vegas to talk over their next steps in managing the Colorado River.

Federal Reclamation Commissioner Brenda Burman, whose agency operates reservoirs on the river, [pressed for the drought contingency plans](#), saying the agreements were crucial to lessen the chances of the system spiraling to perilously low levels.

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With the first cutbacks now about to take effect, Burman said a top priority will be working with the states and Mexico as they follow through on the agreements.

"It's time to implement. It's time for people to come to the table and make those agreements work," Burman said in an

interview with The Arizona Republic.

The current level of Lake Mead puts the reservoir in a zone called "Tier Zero," at which the first cuts are triggered under the deal.

"Mexico and Nevada and Arizona have agreed voluntarily under those drought contingency plans to contribute more water to the system," Burman said. "That means there will be some significant contributions from those places, and that's important."



**Federal Reclamation  
Commissioner Brenda  
Burman speaks about the  
Colorado River during an  
interview in  
Phoenix. (Photo: Sean  
Logan/The Republic)**

Arizona will see a cut of 192,000 acre-feet in water deliveries next year, or 6.9% of its total allotment of 2.8 million acre-feet. Nevada's share will be reduced by 8,000 acre-feet, while Mexico's will take 41,000 acre-feet less.

That water will remain in Lake Mead, and will only be recovered in future years once the reservoir rises above an elevation of 1,100 feet. Its level now stands about 15 feet below that threshold.

The cuts under the deal represent 12% of the total water supply for the Central Arizona Project, which delivers water

by canal to Phoenix, Tucson and other areas. The agency that manages the canal has said the cuts will [reduce deliveries for agriculture by about 15%](#) and eliminate water that would have been available for storing underground and replenishing groundwater at facilities along the CAP Canal.

While representatives of the states and water districts were negotiating the agreement last year, it had appeared for a time that larger cuts might be necessary in 2020. But heavy snow across much of the Rocky Mountains last winter helped increase runoff into the river, boosting the levels of Lake Powell and Lake Mead.

Arizona, Nevada and California have also helped the situation during the past year by voluntarily conserving significant amounts of Colorado River water.

According to Bureau of Reclamation figures, Arizona and California together conserved 316,000 acre-feet in 2018, and are on track to conserve an estimated 685,800 acre-feet in 2019. Burman said voluntary conservation efforts by the states have helped, and the drought contingency plan has incentivized more conservation.

“That’s protecting Lake Mead. That’s protecting everyone’s water source. That protects Mexico. That protects the United States,” Burman said.

# Steps to address depleted reservoirs

The Colorado River's reservoirs have dropped dramatically since 2000. Years of drought and overuse have taken a toll on the river, and scientific research has shown that climate change is adding to the strains by pushing up temperatures.

The drought contingency plans — one for the three Lower Basin states and the other for the Upper Basin states of Colorado, Wyoming, Utah and New Mexico — are designed to help shore up Lake Powell and Lake Mead between 2020 and 2026.

Burman has headed the Bureau of Reclamation for the Trump administration since 2017.

She described the set of agreements as "an incredible achievement — by the basin states, by Mexico, by the Department of Interior, by NGOs, by tribes."

Arizona water officials tout their Colorado River drought plan as a historic step forward. Critics see drawbacks and missed opportunities. Diana Payan, The Republic | [azcentral.com](http://azcentral.com)

Arizona's plan for managing the water cutbacks involves deliveries of "mitigation" water to help lessen the blow for some farmers and other entities, as well as compensation

payments for those that contribute water. The payments will be covered with more than \$100 million from the state and the Central Arizona Water Conservation District.

Much of the money will go toward paying for water from the Colorado River Indian Tribes and the Gila River Indian Community.

“All of us saw the risk. We saw the risk of Lake Mead and Lake Powell crashing to critically low elevations,” Burman said. “We knew that we could be headed to crisis, and the parties really came together.”

The Colorado River and its tributaries provide water for about 40 million people and more than 5 million acres of farmland from Wyoming to Southern California.

“The DCP is designed to buy down risk, and we knew the risk at the end of last year was too great,” Burman said. “Is there any risk left on the system? Sure, there is. But DCP has made a significant contribution to making sure those water supplies are safe.”

**COLORADO RIVER DEAL:** [Climate change looms over long-term solutions](#)

## **A 'bridge solution'**

The legal framework that divides the Colorado River among

seven states and Mexico was established during much wetter times nearly a century ago, starting with the 1922 Colorado River Compact. That and subsequent agreements have allocated more water than what flows in the river in an average year, leading to chronic overuse.

For decades, the river has been so heavily used that it seldom reaches the sea. Its delta in Mexico has shriveled, leaving only small wetlands in a dusty stretch of desert.

Planet-heating pollution and rising global temperatures are affecting the river. Scientific research has found that about [half the trend of decreasing runoff](#) from 2000-2014 in the Upper Colorado River Basin was the result of unprecedented warming. Higher temperatures have reduced the flow of streams and increased the amount of water that evaporates off the landscape.



19 Photos

Drought at Colorado River and Lake Mead

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The river's flow from 2000-2019 has decreased by about 17% from the 20th-century average. And climate models point to drier conditions as the world continues to heat up due to carbon emissions.

In [one study](#), climate scientists Brad Udall and Jonathan Overpeck used climate models to estimate a business-as-usual scenario of greenhouse gas emissions. They projected that without changes in precipitation, warming will likely cause the Colorado River's flow to decrease by 35% or more by the end of the century.



Water managers and supporters of the latest Colorado River deal have called it a “bridge solution” to get the region through 2026, by which time new guidelines for managing shortages are supposed to be in place. But they’ve also described the deal as a stopgap measure — a temporary fix on top of existing 2007 guidelines — that will provide a short window of time to plan bigger steps.

**GROUNDWATER:** [For decades, water beneath state's big cities was spared. That's about to change](#)

Federal officials plan to begin a review by the end of next year that examines how the existing rules have worked and how the guidelines for potential shortages could be improved after 2026. This next round of negotiations could turn out to be more difficult.

In a [new report](#), water researchers Anne Castle and John Fleck warn that the Colorado River’s water supply could decline so much in the next decade that the ability of the four Upper Basin states “to meet their legal obligations to downstream users in Nevada, Arizona, California, and Mexico would be in grave jeopardy.”

Castle and Fleck examined the latest science on projected flows and analyzed the legal framework governing the Colorado River.



**The CAP canal winds through a neighborhood on one side and the desert on the other in Phoenix as seen from the Deem Hills Recreation Area. (Photo: David Wallace/The Republic)**

“Legal institutions designed nearly a century ago are inadequate to address the significant risk of shortfall combined with uncertainty about whose water supplies would be cut, and by how much,” they wrote in a summary of the study.

Given the significant risk of shortfall, the researchers said, options include negotiating legal agreements among the Colorado River Basin states “to clarify rules for sharing shortages” and setting up “voluntary, temporary, compensated water conservation programs now to bank

conserved water as a hedge against risk."

They said a repeat of severe drought conditions could nearly empty the Upper Basin's main storage reservoirs.

"While the risk of that happening remains low in the short-term, the threat increases substantially over time, and regardless of the time frame, the consequences could be dire," said Castle, a senior fellow at the Getches-Wilkinson Center for Natural Resources, Energy and the Environment at the University of Colorado Law School.

In a statement, Castle likened the situation to a homeowner buying insurance to guard against devastating losses in a fire. She said the question is, "What kind of insurance against the risk of Colorado River water curtailment should water users buy?"

Patti Aaron, a spokesperson for the Bureau of Reclamation, responded to the researchers' findings.

"We applaud a continued focus on the Colorado River, particularly regarding the risks we all are facing going forward," Aaron said in an email. "We have a solid history in this Basin of finding solutions to complex problems by working together in an open and collaborative way. Reports of this nature help us stay on that path."



18 Photos

A closer look at Glen Canyon Dam

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## Disputes on dam, Salton Sea

Activists have also gone to court to challenge how the federal government is managing Glen Canyon Dam on the Arizona-Utah border. Three environmental groups sued the Interior Department in October, arguing federal officials ignored established climate science in their 2016 “record of decision,” a 20-year operations plan for the dam.

The groups — Save The Colorado, Center for Biological Diversity and Living Rivers — [filed the suit in U.S. District](#)

[Court in Prescott](#), arguing agencies carried out an “incomplete environmental analysis” and violated federal law.

They demanded the government redo its analysis in the plan and include the alternative of decommissioning and removing Glen Canyon Dam. The groups [argued the federal government’s approach](#) of seeking incremental solutions, such as the drought contingency plan, has been ineffective.

Burman said she couldn’t comment on the lawsuit.

It’s not the only conflict that has sprung up in relation to the drought agreement.

California signed on to the deal, but the state’s Imperial Irrigation District balked at participating.



**The New River drains into the Salton Sea on the sea's southeast side in this aerial photo, October 17, 2019. Aerial support provided by LightHawk (*Photo: Jay Calderon/The Desert Sun*)**

Imperial holds the single largest share of Colorado River water, which flows to farms producing crops such as alfalfa, broccoli and Brussels sprouts. Imperial's officials have called for the state and federal governments to urgently address a [worsening environmental crisis at the Salton Sea](#), which is shrinking and exposing dry lake bed that [sends dust blowing](#) into surrounding communities.

The sea has been shrinking more rapidly under a 2003 deal that is transferring water from the Imperial Valley to growing urban areas in San Diego County and the Coachella Valley.

In October, the Imperial Irrigation District's board members [voted unanimously to declare an emergency at the Salton Sea](#), pressing for California officials to break through years of wrangling and red tape to get working on dust-control and habitat projects along the retreating shores.

Last month, the IID board [adopted a resolution](#) laying out parameters for IID's involvement in future Colorado River negotiations. They said in the resolution that "the linkage between the Colorado River and the Salton Sea is inextricable."

**SAVING THE SEA:** [Ideas abound to fix the Salton Sea. But some say let it be.](#)

The district's officials have said they aren't participating in the drought contingency plan because it leaves out the Salton Sea.

"No single agency has a greater stake in the continued viability of the river system and Lake Mead," IID board president Erik Ortega said in a statement. "And at the same time, no single agency is in a better position to contribute to, or provide a response for, the river's changing hydrology due to persistent drought conditions."

How Imperial and other entities approach the next round of negotiations will probably come up often in Las Vegas this

week when water managers meet at the annual conference of the Colorado River Water Users Association.

Burman, who is scheduled to speak, said the drought contingency plan has laid a foundation that will help the states and other parties work through their next steps.

"Our history on the Colorado River is making improvements and incremental progress as we go," Burman said. "It's important that we're out there talking about the challenges. It's important that we're out there talking about possible solutions."

*Reach reporter Ian James at*

*[ian.james@arizonarepublic.com](mailto:ian.james@arizonarepublic.com) or 602-444-8246. Follow him on Twitter: [@BylanJames](https://twitter.com/BylanJames)*

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