Things Are Getting Crazy on the Colorado River

The Colorado River, the source of much of the American West's economic productivity, essentially functions like a bank. This month, the nation's largest water agency, the Metropolitan Water District, began what amounts to a run on the bank.

Lake Mead / Image via Shutterstock

The Colorado River may not look like it, but it's one of the world's largest banks.

The river is not only the source of much of the American West's economic productivity – San Diego, Phoenix and Denver would hardly exist without it –

but its water is now the central commodity in a complex accounting system used by major farmers and entire states.

Now, when talking about the river, water officials across the West use terms like bank, payback and surplus. Often the analogies to finance don't stop there – they put money behind deals that dictate who gets water and who does not.

This month, the nation's largest water agency, the Metropolitan Water District, began what amounts to a run on the bank.

The district – which delivers water across Southern California, including to San Diego – started rapidly withdrawing water from the river, which is stored behind Hoover Dam in Lake Mead.

Metropolitan officials are worried that the federal government is about to step in to ration the river, which 40 million people depend on as it flows some 1,300 miles from its headwaters in Wyoming and Colorado to the Sea of Cortez in Mexico.

All this is happening because an ongoing drought along the river has collided with years of overuse by the states, primarily California and Arizona.

In recent years, states realized their problem and began trying to create "surplus" water in Lake Mead and bank it for use in future years. But those bank accounts get frozen if the lake's elevation is below 1,075 feet at the start of a year. Water agencies would still be entitled to annual flows from the river fed by snow melting in the Rocky Mountains, but that's like living paycheck to paycheck while working for a fickle boss or nearly bankrupt company.

Metropolitan's immediate concern is that it will lose the ability to withdraw 600,000 acre feet of banked water from Lake Mead – enough water for roughly 7 million people. The district can only get half of that out this year, meaning it is in danger of losing lots of water.

How that happened is the result of a complex, arcane and absurd accounting system. The system – used now by seven states and two countries – tries to correct a historic mistake. Starting in 1922, officials gave cities and farms rights to more water from the river than the river usually holds.

Now, like people who borrow money to get out of debt, we're in a world where there's more water on paper than there is in the river.

Metropolitan is trying to get all the water it can out of Mead before someone freezes its bank account. That means moving water into reservoirs within California's borders – beyond the reach of the federal government's rationing or other states that claim the river's water.

At last count, Lake Mead stood just six feet away from falling into shortage, the first step toward rationing water. There was already about a 50-50 chance the river would fall that far this year. The chances are even higher now, because Metropolitan's plan to withdraw as much water as it can may cause the lake to drop four or five feet – though the lake will rise again as snow melts this spring.

Once there's a shortage, Arizona is supposed to be in trouble. At least on paper, California's rights to the river's water are so secure that Arizona's water supply would have to run dry before California loses a single drop.

That's politically impossible since 7 million people live in Arizona and need water. So for several years, Metropolitan and a clutch of power-players across seven states have been trying to reach a different, more realistic deal. Their efforts have repeatedly stalled, mostly because of squabbling within Arizona, which is ironic because the state stands to lose so much unless something changes.

The Arizona Chamber Foundation, a nonprofit business group, said without a deal the state's access to water "could be caught up in the courts for decades or managed from Washington, D.C. Such uncertainty could be a drag on

Arizona's historic economic resurgence."

The deal would allow Metropolitan to withdraw banked water even during an official shortage. But now Metropolitan is preparing for the worst-case scenario, which is a combination of uncertainty and a banking freeze. Still, district officials hopes Arizona signs a deal in coming weeks.

"We're not at the point of no return," said Bill Hasencamp, the district's manager of Colorado River resources.

Tom Buschatzke, the director of the Arizona Department of Water Resources, said in a statement that he knew Metropolitan would begin trying to get its water out as quickly as possible.

"We are not surprised," he said, noting that the rapid draw down is one of "many reasons" why Arizona needs to reach a deal soon.

Now, the federal government may step in.

Brenda Burman, the head of the Bureau of Reclamation, the agency within the Department of Interior that oversees the river, said she is done hearing how close everyone is to reaching a deal, something that officials have been saying since at least 2016.

"Close – isn't – done," she said, according prepared remarks for a talk she gave last month in Las Vegas. "Only done will protect this basin."

A century ago, the river was divided up on paper into an upper basin and a lower basin. Each basin is supposed to split the available water evenly, but most of the water comes from the upper basin and most of the people live in the area served by the lower basin, which includes California, Arizona, Nevada and Mexico.

That means, in effect, the upper half of the Colorado is exported to the lower half. That's not always enough, though.

Last year, the agency that runs Arizona's water system, the Central Arizona Project, got busted using water accounting quirks to get more water from the upper basin than it needed. Officials in the upper basin accused Arizona of threatening the water supply for 40 million people.

For decades, water officials across the region have alternated between working together to share the river and fighting like hell to horde it.

Following a long-running Supreme Court battle between California and Arizona, the Bureau of Reclamation in the mid-1960s created a modern accounting system to track who was using how much of the river from year to year.

For the past two decades, the river has been in drought. Partly to cope with that, states and water agencies began to use that tracking system to create increasingly complex transactions. The original laws governing the river don't anticipate users would save water one year and claim the right to use that water in future years, the practice known as banking. The old laws also don't anticipate or even allow the sale of water across state lines.

That has fallen by the wayside as a series of sophisticated transactions have proliferated, where states bank and transfer water.

The Southern Nevada Water Authority, for instance, has sent enough water for several million of its residents to Arizona, where it is stored underground.

When Nevada wants its water back, it won't actually pump that water up from the ground. Arizona will curb its use of the Colorado River and let Nevada take water otherwise earmarked for Arizona.

Likewise, if the new river-sharing deal happens, Nevada has promised to lend water to Metropolitan that, in turn, will help Arizona avoid devastating cuts.

"It's creative ways to live within the existing law of the river," Hasencamp said.

Indian tribes saw it another way. They complained early on that transactions would rely on water that actually belongs to tribes. On paper the tribe have rights to lots of water, even though they currently lack a real way to get most of that water from the river to their land. So other states are essentially banking on tribes not getting that water anytime soon.

"It is logical to expect that the current water users will have even more incentive to resist the development of Colorado River water by the Navajo Nation in order to minimize their risk of shortage," the tribe wrote in a 2007 letter to federal officials.

A federal appeals court disagreed with the tribes' arguments on legal grounds, though didn't quite deny they had a point.

"Whether or not the Nation's realpolitik predictions have some truth to them," the predictions were too speculative to allow the case to proceed, the 9th Circuit Court of Appeals found.

There are two ways to get people to use less water. The first is to forbid them from using it, the regulatory approach. The second is to pay them not to, the market approach.

Because regulations often end up in court, some water officials think throwing money at the problem is easier. Most Colorado River water is still used for farming. So when push comes to shove in a drought, cities will end up paying farmers to use less water.

Over the past several years, cities from Los Angeles to Phoenix to Denver pooled their money to pay farmers to use less water.

These payouts happened up and down both basins: In 2017, cities paid $635,000 to a New Mexican farmer who stopped growing corn, potatoes, alfalfa and beans along the San Juan River, one of the Colorado's far-flung tributaries. They paid several farmers along the Price River in Utah about

$370,000 to idle their fields or change how they water them. Several farmers along Fontenelle Creek in Wyoming changed how they watered their pastures and got a few hundred thousand dollars in return.

These projects didn't amount to much, a few million dollars to save about 11,000 acre feet of water. (An acre foot of water would just about cover a football field in a foot of water. Each acre foot provides enough water for roughly three Southern California households.)

But they are likely signs of bigger things to come.

The biggest transaction of all is between the San Diego County Water Authority and the Imperial Irrigation District. The irrigation district, which provides water to farmers in Imperial County, holds rights to as much Colorado River water as the states of Arizona and Nevada combined.

In exchange for billions of dollars, the Water Authority can use some of Imperial's high-priority water rights for decades to come.

For now, that deal insulates San Diego from some of the drama on the Colorado, but Water Authority officials have actually wanted to get in the mix.

For several months, the Water Authority has said it would like to leave some of the water it buys from Imperial in the river. In doing so, San Diego water officials would forgo using water they spent a quarter century trying to get and fighting over in court.

Dan Denham, the Water Authority's assistant general manager, said San Diego could leave enough of that water in Lake Mead to raise its elevation by three feet.

The Water Authority says it doesn't need all that water right now. Part of that's because water demand has unexpectedly fallen in recent years, thanks in part to a mentality of conservation that Californians adopted during Gov. Jerry Brown's drought emergency.

There are also financial considerations – the Water Authority isn't keen to pay for all of that Imperial water, wants to resell it, or some combination of both.

For years, the Water Authority was in court arguing Metropolitan charges too much to deliver the Imperial water to San Diego. In fall 2017, the Water Authority lost the biggest part of that battle, which means we're pretty much stuck paying high "wheeling costs." Storing water in Lake Mead would at least temporarily reduce those wheeling costs to nothing, saving the Water Authority money.

Second, there's a chance the Water Authority could resell the water to someone else on the river, a new twist to what was already the biggest water deal of its kind in American history. That might cause a ruckus in Imperial, where some farmers already believe San Diego isn't paying them enough for their water. Imagine if the Water Authority then made money reselling that same water.

"I don't think we want to limit early on the what-ifs," Water Authority general manager Maureen Stapleton told her board of directors last summer. "All options really could be on the table and let's see what works for all agencies."

The idea hasn't progressed a whole lot since then, in part because the Water Authority needs Metropolitan's aid to start banking water. Water Authority board Chairman Jim Madaffer has tried to make storing water in Mead a key part of any legal settlement between the Water Authority and Metropolitan in litigation that is ongoing. So far, Metropolitan, wary of doing any deals with the Water Authority after years in court and at odds, has expressed no public interest in that idea.

For now, as the amount of water in Mead continues to decline, Southern California is blessed that it is not solely reliant on the river – it gets water from both the Colorado and the rivers of Northern California.

When the California drought left those northern rivers empty, Metropolitan began drawing as much water as it could from the Colorado. But when the drought ended here but continued on the Colorado River, Metropolitan began using as much Northern California water as it could and leaving water in Lake Mead. That’s some of the banked water it could now lose.

Recently, Metropolitan projected how much it would cost to replace some of its Colorado River supplies in coming years. Depending on the scenario, that could cost between $80 million and $954 million, though those numbers are pretty rough and would be divided up among 19 million people who get water from the district.

“We don’t know where we can get it, but if we have to get a significant amount of water in a hurry we know it’s going to be more expensive,” Hasencamp said.