

ENVIRONMENT

Facing water cutbacks, Arizona farmers 'in limbo' despite \$10 million federal pledge



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The U.S. Department of Agriculture has approved \$10 million to help pay for water projects in the farmlands of central Arizona, where growers are bracing for their supply of Colorado River water to be shut off.

But those funds, conditionally awarded this month by the Natural Resources Conservation Service, are still subject to negotiations between federal and state officials. And leading representatives of irrigation districts in Pinal County say many details about the funding remain uncertain, including how much they may be able to spend on drilling wells to pump more groundwater, a central piece of Arizona's plan for implementing the historic Colorado River drought deal signed last year.

"It's really up in the air as to what exactly we'll be able to get done with this funding," said Paul Orme, a lawyer who represents four agricultural irrigation districts. "There's still a lot of uncertainty from the standpoint of the federal participation in this whole project at this point."

And if Pinal's farmers aren't able to secure more federal support, they could end up falling short of their funding goal, which would handicap their efforts to use more groundwater in place of Colorado River water.

The Colorado River's reservoirs have declined dramatically due to chronic overuse and two decades of mostly dry years, which have been exacerbated by rising temperatures unleashed by the burning of fossil fuels.

As Arizona has grappled with plans for decreased water deliveries through the Central Arizona Project Canal, one of the big challenges has revolved around securing enough money

to help lessen the economic blow.

Arizona's plans for dividing the water cutbacks under the Colorado River agreement were hashed out during a series of meetings and negotiations. In January 2019, Gov. Doug Ducey signed legislation clearing the way for Arizona to participate in the deal, called the Lower Basin Drought Contingency Plan, or DCP.

The three-state agreement laid out water reductions through 2026 to reduce the risks of Lake Mead falling to critically low levels.

Arizona's piece of the deal included special arrangements for Pinal County farmers, who are in line to face large cuts and who could see their Central Arizona Project allocation slashed to zero as soon as 2023.

The state's plans called for enabling irrigation districts in central Arizona to pump an additional 70,000 acre-feet of groundwater per year. That amount, enough to cover more than 100 square miles in water a foot deep, would replace a portion of the Colorado River water that Pinal growers stand to lose.

The farmers and their water districts sought \$50 million to pay for drilling more wells, buying pumps and building pipelines to carry groundwater to canals and fields.

But more than a year later, they haven't been able to obtain all those funds. The plan approved by the Legislature appropriated \$9 million, and additional funds from other Arizona sources brought the total amount committed to \$30 million.

State legislators last year separately agreed to provide Pinal irrigation districts a \$20 million loan to help them move forward with well-drilling while they pursued support from the federal government. Under the legislation, that loan would have to be repaid by the end of 2021.

Orme said the area's growers and water managers have concluded the only way to repay the loan would be to get federal funds, but now "the timing is just off." Given the need for negotiations and a federal environmental review, he said, it's unclear how much federal money the districts might have in hand for water projects by late 2021.

"We're trying to work through those problems," Orme said. "Before we run the risk of borrowing on our loan, we need to really determine what the viability of federal repayment is."

Funding in limbo

The federal agency's Regional Conservation Partnership Program, which is funded through the Farm Bill, has a per-project limit of \$10 million a year. During the application process, Orme said, "they basically told us, 'You have to throw in more conservation projects, not just drilling wells, to make this a viable application.'"

So, the applicants bolstered their proposal by including additional water-saving efforts. With those changes, Orme said, the idea is to apply in three annual rounds, each year proposing about \$7 million for well infrastructure and \$3 million for conservation projects.

While it's a positive sign that the application was conditionally approved, he said, much remains to be negotiated.

"What we don't know is if our conservation projects are adequate. We don't know if they will accept the well infrastructure pieces," Orme said. "And we don't know if the timing will work for future federal applications. So, we're really sort of in limbo right now."

In its April 16 announcement, the Natural Resources Conservation Service said the funding is intended to help the Arizona Department of Water Resources and its partners "target a mix of water supply and water savings practices to offset dwindling supplies from Colorado River irrigation water." It said the award, which is subject to negotiations, supports implementation of the Colorado River agreement and "includes innovative water storage activities and efforts to engage producers in switching to low water use crops."

Farms in Pinal County produce crops including cotton, alfalfa, corn and wheat. Some also grow cantaloupes, peppers, spinach, and other crops.

The negotiations will involve federal and state officials, with input from irrigation districts and other partners, ADWR Deputy Director Clint Chandler said in an emailed statement. He said the talks will determine potential funding for constructing wells, refurbishing wells and paying for other projects.

Keisha Tatem, NRCS' state conservationist in Arizona, said her agency will focus on the "conservation benefit."

"We're not looking at as many wells as possible, as much as we are looking at, how do we maximize efficiencies in water use," Tatem said in an interview with The Arizona Republic. "We're really trying to make the best use of the resources that we have while also maintaining agriculture."

Tatem said it's always possible the project might not move forward if the parties don't agree on a plan. But she said the \$10 million very well could turn out to be the start of a larger effort.

"How do we make the best decisions to make sure water gets to those producers while also maintaining the resource at a level that it will continue to thrive?" she said. "We can develop a groundwater irrigation system as long as it's managed appropriately."

Farmers encouraged, yet concerned

The Arizona Farm Bureau praised the announcement of federal support. Stefanie Smallhouse, the farm bureau's president, said agriculture in Pinal County accounts for 25% of the state's agricultural sales and sustains its rural communities.

"We are proud to be a part of this partnership and look forward to working with all involved," Smallhouse said in a statement. She said there is "a long process ahead" but the award is encouraging.

Arizona gets nearly 40% of its water from the Colorado River.

Farmers in Pinal County have known for years that their supply of Colorado River water was temporary. They hold the lowest priority for water from the CAP Canal.

Under a 2004 settlement, their water deliveries were set to gradually diminish over the coming years and eventually stop after 2030. Under the drought deal, the farmers are now in line for a full cutoff of CAP water supplies as many as seven years earlier.

Even with the additional groundwater pumping authorized under the plan, Pinal growers anticipate having to leave a significant portion of their farmlands dry and fallow in a shortage as deliveries of CAP water drop off.

Farmer Dan Thelander said the irrigation districts need to get started drilling wells and building infrastructure to prepare for the water shutoff. He said representatives of the districts and growers have been "jumping through all the hoops" to try to get the federal funds, but it's unclear whether they'll be able to meet all the conditions.

"It's pretty frustrating," Thelander said. "It's disappointing that we thought we had an agreement, but the federal component has been much more difficult to get over the finish line than anybody anticipated."

Thelander said if the federal funding doesn't come through, he and other growers would look to the state to uphold commitments that were made during talks on the deal.

"We're going to keep working to try to get the federal money, as diligently as we can," Thelander said. "But if we come up short, then we will be asking the state to make good on the \$20 million that we're shorted by the federal government."

'Tier Zero'

Cranking up groundwater pumping as planned would involve drilling or refurbishing roughly 40 to 50 wells, Orme said. And if the amount of money available were to be \$30 million instead of \$50 million, he said, that would translate into much less pumping, and a lot more farmland left dry — potentially pushing some farmers out of business.

If that happened, he said, it would mean that "Pinal County didn't get what they thought they were bargaining for."

Representatives of seven states and the Trump administration signed the set of agreements in May during a ceremony on a terrace overlooking Hoover Dam and Lake Mead.

The reservoir near Las Vegas now stands 44% full, a level that has put Mead in a zone called "Tier Zero," which triggered an initial round of water cutbacks this year for Arizona and Nevada.

Mexico agreed under a separate accord to leave some water in Lake Mead to help boost its levels. And California agreed to contribute water at a lower trigger point if the reservoir continues to fall.

The federal Bureau of Reclamation projected this month that Lake Mead will likely stay within "Tier Zero" in 2021 and 2022, which would again cut annual water deliveries to Arizona by 192,000 acre-feet, or 6.9% of the total allotment of 2.8 million acre-feet.

Those reductions would fall on CAP supplies that have been used for water banking, groundwater replenishment, and agriculture.

River hit by 'megadrought'

The Colorado River and its tributaries provide water for about 40 million people and farmlands from Wyoming to Southern California.

The river has long been overallocated, and a growing body of research has shown global heating is sapping its flow.

In one study, scientists found the river is so sensitive to warming that it could lose about one-fourth of its flow by 2050 as temperatures continue to climb.

In another study, researchers studied trees' growth rings and determined the American Southwest from 2000-2018 experienced its second driest 19-year period in the past 1,200 years. The scientists found that human-caused global warming has turned what would have otherwise been a moderate drought into one of the most severe "megadroughts" since 800 A.D.

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The growing strains on the river could eventually force other parts of the Colorado River Basin to turn toward costly adaptation measures like those planned in Pinal County.

But the strategy of using state funds to facilitate more groundwater pumping has been controversial.

The shift to relying on wells raises the possibility that the area could again sink into a pattern of falling aquifers — just as it did decades ago, before the arrival of Colorado River water with the construction of the CAP Canal.

It's not clear how quickly the desert aquifers may decline. But state water officials acknowledged in October that projections looking out 100 years show Pinal doesn't have sufficient groundwater to provide for its existing communities, farms and many planned subdivisions.

During the debate in the Legislature last year, some environmentalists opposed the plan to use state money to help drill more wells.

Sandy Bahr, director of the Sierra Club's Arizona chapter, said that plan is just "continuing this unsustainable way of addressing water in Arizona, where you rob Peter to pay Paul, moving things around."

Ramping up pumping, she said, will not only draw down water levels but will also likely cause the ground to sink and bring more of the gaping fissures in the earth that periodically have cracked open in parts of the desert.

Bahr said she'd like to see federal funding go toward encouraging a shift toward different crops that are more suited to the desert environment.

"The federal government should be looking at how can water be conserved," she said, "not how can they help with pumping more groundwater."

Have a tip to share? Reach reporter Ian James at ian.james@arizonarepublic.com or 602-444-8246. Follow him on Twitter: @ByIanJames

More: Facing cutbacks on the Colorado River, Arizona farmers look to pump more groundwater

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