

# Cities look to farms for help in Colorado River drought

West's biggest water agencies finalize a major agreement to boost Lake Mead levels.

As the Colorado River grinds into what could be its 15th year of drought, the West's biggest water agencies are finalizing a major new agreement to boost water levels in Lake Mead, on the Arizona-Nevada border. Water bosses will likely announce the deal at the annual Colorado River Water Users Association conference, which begins this Wednesday in Las Vegas.

Under the so-called Pilot Drought Response Actions program, which would begin next year, urban water agencies in California, Arizona and Nevada hope to use a number of methods to add between 1.5 and 3 million acre-feet of water to Lake Mead over the next five years. That's roughly as much water as 3 to 6 million households use in a year. Those "protection volumes" are designed to keep the water level in the reservoir from sinking below 1,000 feet above sea level, at which point Las Vegas will have difficulty withdrawing its share of the Colorado River from the reservoir, which could set off a humongous water fight before the U.S. Supreme Court.

Thanks to increased demand, the drought and climate change, the Lower Basin states of California, Arizona and Nevada use more water each year than is released from Lake Powell, the major upstream reservoir on the Colorado River. Thus, each year, Mead drops lower.

"That's the underlying driver to the risk in the Lower Basin," says Chuck Cullom, the Colorado River Program Manager for the Central Arizona Project, which supplies water to Phoenix, Tucson and Arizona farms. "This agreement

is a first step to address that.”

Without it, conditions will likely soon be bad enough that the U.S. Secretary of the Interior will have to declare an official shortage, thereby cutting back water deliveries to the Lower Basin states — and perhaps more ominously, effectively taking control of the river there. According to the most recent projections, there’s a 25 percent chance of that happening in 2016, and better-than-even odds it will happen in 2017.

The new agreement is the latest chapter in the ongoing effort to stay ahead of the drought on the Colorado. Back in 2007, the Colorado River states signed a deal for managing shortages if the drought continued. At that time, computer models suggested the risk of hitting critical elevations in Lake Mead “really wasn’t very large,” says Terry Fulp, the director of the federal Bureau of Reclamation’s Lower Colorado River region. “It was in the 1 to 2 percent range through 2026.”

But by May 2013 — when it was becoming clear that this was one of the worst droughts in the past 1,200 years — Reclamation officials realized that the severity of the drought had outstripped the assumptions underlying the 2007 agreement. “We’ve seen a drought much worse than what we had analyzed,” says Fulp. “And when we reassessed the risk, the chance of getting (to critical reservoir elevations) was quite a bit higher.”

At a Western Governor’s Association meeting in Park City, Utah in late June, 2013, government officials met with representatives from the Colorado River states and began what turned into a year-long effort to negotiate the Drought Response Actions program. California’s Colorado River oversight board approved the [Memorandum of Understanding](#) for the program this November; the Central Arizona Project board approved it last Thursday. Nevada’s Colorado River Board will vote Tuesday, and the the Metropolitan Water District of Southern California, which supplies Los Angeles and San Diego, and Southern Nevada Water Authority, which supplies Las Vegas, will vote Wednesday.

Under the program, water agencies in Arizona, California and Nevada will also carry out a series of in-state water swaps and operational adjustments to put more water into Lake Mead. But most significantly, the program provides a framework for farms in the Lower Basin states to play a much bigger role in buffering the cities against deepening drought. In Arizona, nine irrigation districts near Phoenix have already agreed to “forbear,” or give up, 160,000 acre-feet of water over two years — nearly half of the total amount of water Arizona is hoping to put into Lake Mead. The bulk of that farm water will come from the Central Arizona, Maricopa-Stanfield and New Magma irrigation and drainage districts, with the remainder coming from the Tonopah Irrigation District; Roosevelt Water Conservation District; Queen Creek and Hohokam irrigation and drainage districts; and BKW Farms and Kai Farms.

The Drought Response Actions program is the second big Colorado River program launched this year that looks to farms as an emergency reservoir. This summer, Metropolitan, the Southern Nevada Water Authority, the Central Arizona Project, Denver Water and the federal government launched a separate [Colorado River System Conservation](#) program. Those agencies are currently examining more than a dozen forbearance bids from farms and irrigation districts along the lower river. That program will spend about \$11 million to generate roughly 75,000 acre-feet of water for Lakes Mead and Powell over the next two years.

Though similar, the two programs are separate. The water purchased under the Colorado River System Conservation program will be earmarked as shared “system water” that remains in Lakes Mead and Powell. The Drought Response Actions program water will also be used to boost levels in Lake Mead, but will ultimately be diverted for use by the agencies that paid for it. The System Conservation program, while smaller, also allows agencies to pool their money to buy water from a wider geographical area. That includes Mexico, which can now participate in such deals thanks to Minute 319, a U.S.-Mexico treaty amendment signed in 2012.

“The System Conservation agreement contemplates pooled actions, meaning that we put money into a shared bucket, and we will fund programs wherever they are,” says Cullom. In contrast, he says, “the (Drought Response Actions) MOU is about what each individual agency can do on their own,” within their respective states.

Both programs will help reservoirs from reaching critically low levels and, water managers hope, could be expanded into longer-term programs. Yet they still won’t provide anything close to what’s needed to decisively pull the Colorado System out of its decade-and-a-half long nosedive.

As Fulp puts it: “We’re not making water here.”

*Matt Jenkins is a contributor to High Country News.*

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