

# Allhands: What happens to Arizona when a water shortage is declared on Lake Mead?

[Joanna Allhands](#) Updated 11:34 a.m. MT May 17, 2018

Arizona depends on Lake Mead to provide roughly [40 percent of its water supply](#) each year.

But the lake is rapidly careening toward a shortage, which would be declared once water levels reach 1,075 feet of elevation.

We don't want that, because Arizona stands to lose 320,000 acre-feet of water. That's roughly enough to supply 640,000 households for a year.

What happens once that water goes away? Let's walk through it.

## Is a water shortage a sure thing?

The Colorado River produces less water than Arizona and other states are entitled to use. And that is a big problem for our drinking water.

Eventually, yes. Arizona, California, Nevada and Mexico have [paper rights to millions of acre-feet more water](#) than melting snow and rainfall replenishes each year. Until that changes, lake levels will continue to fall. In fact, if it weren't for voluntary efforts to keep unused water in the lake (most of which has come from Arizona), a shortage would have already been declared.

## How soon could a shortage occur?

Sooner than you think. There's a [52 percent chance of the lake dipping to 1,075 feet](#) in 2020, a probability that increases to 68 percent by 2023. The Bureau of Reclamation, which creates the forecast, recently revised the

numbers up, in part because of the historically dry winter we just had.

## What happens in a water shortage?

A shortage would be officially declared in August for January of the following year, and cuts are based on users' water rights. Because Arizona has the most junior water rights, it would take the lion's share of cuts.

There are three tiers of shortage – at 1,075, 1,050 and 1,025 feet – which would result in ever-larger cuts to Arizona's 2.8 million acre-feet annual allocation. A Tier 1 declaration at 1,075 feet would result in a 320,000 acre-feet cut each year, compared to 480,000 acre-feet at Tier 3, or 1,025 feet.

We don't want to dip below 1,050 feet, because that's the [lowest level that electricity can be generated at the lake](#). Dead pool – the point where no water leaves the lake – occurs at 895 feet.

## Will I still have water in my tap?



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Yes. A Tier 1 shortage won't cut city water allocations. So, if you live in metro Phoenix, theoretically, life could go on as normal for you – as long as lake levels don't continue to dip and we don't fall into a Tier 2 or 3 shortage.

But don't expect cities to cruise along without any changes. If a Tier 1 shortage is declared, many would likely enact parts of their [drought mitigation plans](#) to turn off fountains and stop overseeding parks and golf courses to save water. But it's doubtful that homeowners or businesses would be forced to make similar cuts – initially, at least.

## **Who would bear the brunt of the cuts?**

Life would not be good in a Tier 1 shortage for those Arizona users with the most junior water rights. There would be no more additional Colorado River water to store in state's underground water bank, and more catastrophically, Pinal County agriculture would lose about half of its Colorado River allotment.

The two largest Pinal County irrigation districts would pump even more groundwater from wells – which isn't sustainable – and even so, it wouldn't be enough to irrigate everyone. Paul Orme, an attorney who represents the districts, estimates that roughly 20 percent of Pinal County acreage currently in production could be fallowed as a result.

## **How would fallowed land impact me?**

Paying farmers to fallow land could get expensive, and ultimately, that's not a sustainable solution. But fallowing land without compensation could be a financial disaster for many farmers – not to mention an economic drag on

Pinal County.

And let's not forget the cracked-earth images and "not enough water" headlines that would be reported in the national press, which already is convinced that [Arizona is an unsustainable place](#). The repercussions would echo statewide.

## **Could things get worse over time?**

How has one of the driest winters on record affected metro Phoenix's water supply? Let's take a helicopter tour to find out. Wochit

Maybe. It could take years – if ever – for Lake Mead to recover once a shortage is declared. Some models also suggest that the lake could go into a spiral once a shortage is declared, reaching 1,025 feet in just a few years. That most definitely would impact city water supplies.

## **What are we doing to prevent a shortage?**

The three states that rely on Lake Mead – Arizona, California and Nevada – are negotiating a drought contingency plan to help prop up lake levels. California would agree to take cuts, which is only fair. Under the current rules, it doesn't have to when a Tier 1 shortage is declared.

But it also would require Arizona to [leave even more water in Lake Mead](#) – an extra 192,000 acre feet – during a Tier 1 shortage, which would completely wipe out the water available to Pinal County farmers. That means even more fallow ground.

Farmers want concessions from higher priority users, such as cities and tribes, and as you'd expect, that's taking some time to work out. But the clock is ticking, and all eyes are on Arizona.

California and Nevada have said they're ready to ink a deal, according to Arizona Department of Water Resources Director Tom Buschatzke. The

Bureau of Reclamation, which operates Lake Mead, also has signaled that it wants to see a [finalized drought plan by the end of the year](#).

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