

## THE NATION

## Colorado River water deal is reached

said, is that the drought shows "no sign of ending."

Scientists also predict that climate change will worsen Western drought patterns and reduce Colorado River flows by increasing evaporation and decreasing snowfall. One study released this year warned that global warming could thrust the Southwest into a state of permanent drought by 2050.

"Runoff in five of the seven Colorado River basin states is projected to decline by more than 15% during the 21st century," Kempthorne said.

Against that backdrop, the basin states of Wyoming, Utah, Colorado, Nevada, New Mexico, Arizona and California began negotiations in 2005 on a blueprint for water shortages.

Their plans formed the basis of the document signed by Kempthorne, who called it "an agreement to share adversity" and a landmark in the tangled history of Colorado River management.

The agreement avoided a nasty and prolonged legal battle among the seven states by tinkering with river law without changing the fundamentals of the 1922 compact that divided the Colorado's flow among them.

Although California's senior rights put it in the best position of the lower basin states, the agreement benefited the state by preventing "bloody legal fights in Congress or the courts," said Jeffrey Kightlinger, general manager of the Metropolitan Water District of Southern California.

The guidelines, which will be in effect for the next 19 years, contain three major elements:

- They set particular water-level elevations of Lake Mead as triggers for water cutbacks. The reductions will total less than 10% of the lower basin's allocation. Arizona agriculture will bear the brunt of the shortfall and Nevada a small portion of it.

"California is secure. Its entitlement is not impacted," said Bill Swan, a water rights lawyer for the Imperial Irrigation District, which gets three-fourths of the state's Colorado River allotment.

- Lake Powell, which holds water from the upper-basin states, and Lake Mead, which receives water from Powell, will be operated as one reservoir system. That is expected to make it easier to control Lake Mead's level, and thus the shortage triggers.

- States will be allowed to hold "conserved" water in Lake Mead from year to year, changing existing requirements that make them use or lose their annual allocations.

Water agencies could then pay irrigation districts to fallow farmland, keep the unused irrigation water stored in Lake Mead and draw on it later.

The Metropolitan Water District of Southern California will be able to store as much as 1.5 million acre-feet in Lake Mead, nearly double the capacity of its Diamond Valley Lake Reservoir in Riverside County. That is enough water to meet annual needs for about 3 million average households.

Nevada, which has the smallest water allotment in the lower basin, plans to hold water in Lake Mead from fallow farmland along the Virgin and Muddy rivers. The Southern Nevada Water Authority also will build a small reservoir, called Drop Two, near the Mexican border to capture flows ordered by American farmers who don't use the water when it rains. That measure would decrease flows to the Colorado River's ecologically important delta, potentially sparking an outcry from Mexico.

In return for financing the reservoir, Southern Nevada will get some of the captured water. The Metropolitan Water District and Arizona may also take part in the arrangement.

Las Vegas' exploding population and growing water needs have been a driving force behind the talks. Pat Mulroy, the powerful head of the Southern Nevada Water Authority, had threatened to go to court to get more water.

Michael Cohen, a senior research associate at the Pacific Institute, called the agreement a massive step forward.

But he wasn't prepared to say the states that relied on the Colorado River have fully acknowledged a drier future.

"None of the municipal agencies are saying, 'We need to re-evaluate our urban plans, because there's only so much water,'" he said. "It's not clear that the states are saying, 'OK, we're going to now live in this era of limits.'"

*bettina.boxall@latimes.com  
ashley.powers@latimes.com  
Powers reported from Las Vegas  
and Boxall from Los Angeles.*