

# States agree on plan to make water last

As reservoirs dwindle, river states agree to a landmark conservation plan

Water users from the seven Colorado River states are expected to ratify a regional drought plan this week in Las Vegas, ending years of bickering over how to balance uncertain resources with growing demand.

The heart of the plan is the heart of the river system, its two largest reservoirs along Arizona's northern borders. Lake Powell and Lake Mead hold not only the water needed to survive long dry periods but also the key to a landmark deal meant to give the states a chance to find longer-lasting solutions.

Drought has drained the two reservoirs to below half capacity, increasing the threat of water shortages upstream and in Arizona, along with the loss of cheap hydropower and damage to riparian habitat and recreation sites. With that much at risk, some of the states were prepared to fight costly legal battles. The drought plan can't keep the lakes from shrinking further if dry conditions persist and could trigger the first shortage as early as 2010. But by focusing on the reservoirs and the way they help manage the river's limited supply, the states hope to protect users from the worst effects of drought.

The plan guides management of the river through 2026 using reservoir levels to trigger rationing and a series of experimental conservation programs. Environmental groups say the plan fails to protect the river itself, but the states insist they produced what they could within their limits.

"This won't eliminate the risk of shortage, but it prolongs the period of time before we experience one," said Sid Wilson, general manager of the Central

Arizona Project, which delivers Colorado River water to Phoenix and Tucson. "None of us doubt that drought is a more ominous threat than we ever realized."

## **Finally, a plan**

The seven river states - Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming - had never written a drought plan because they never needed one. The region survived a severe dry stretch in the 1950s, before growth pushed up demand. And when a string of wet years followed, the states instead adopted rules to manage surplus water.

Almost before those rules took effect, drought hit again. Faced with potential shortages and threats from the Interior secretary to impose a federal solution, water users started talking about what happens if the river can't supply demands.

What emerged from negotiations was a plan built around the two big reservoirs.

Until now, separate rules governed the way water flowed from Lake Powell - which was built to benefit Colorado, New Mexico, Utah and Wyoming - into Lake Mead, which stores water for Arizona, California and Nevada.

The drought plan, which includes parts of the old surplus guidelines, would impose one set of rules to operate the reservoirs, balancing the needs of users in both the upper and lower basins. Low water levels in Lake Mead will trigger rationing in Arizona and Nevada under the plan; other measures will attempt to delay shortages.

The first trigger would cut Arizona's allocation by 320,000 acre-feet (about 11 percent) until lake levels recovered. Arizona could lose up to 17 percent of its

allocation under the plan's most dire scenario. State officials say agricultural users would absorb most, if not all, of the losses.

Lake Mead currently sits about 36 feet above the first shortage trigger. Federal hydrologists say the lake should remain at least 25 feet above the trigger in 2008.

"By managing the two reservoirs together rather than fighting over how much water will be released every year, we'll help mitigate the probability of Arizona taking shortages," said Herb Guenther, director of the Arizona Department of Water Resources.

## **How it works**

Barely 300 miles separate Lake Powell, on the Arizona-Utah border, and Lake Mead, on the Arizona-Nevada border, but what happens at the two reservoirs reverberates up and down the Colorado River.

If water levels at Powell drop too low, upstream users would face cutbacks. Hydropower generation would decline. Recreation venues would close. As Lake Mead shrinks, so would Arizona's CAP supply, cutting off farmers in Maricopa, Pinal and Pima counties until water levels rise again.

How water users along the Colorado manage the water conversely affects the lakes and the people and businesses that surround them.

The construction of Glen Canyon Dam in the 1960s gave birth to Page on the shores of Lake Powell; when drought reduced the reservoir to one-third of its

capacity, tourism revenue in the city plummeted.

Mike McNabb has fished Lake Powell for most of the 27 years he has lived in Page and now runs a fishing-guide business. He has seen the city's fortunes rise and fall with the lake levels, and he watches warily as the states plan the future.

"They say it'll never be full again," he said. "But we could have some unbelievable winters and in about three years fill that lake up again. You just never know."

Two years ago, spring runoff inundated parts of the lake that had been dry, covering tamarisk and other plants that had sprouted. With a new food source under water, the fish population exploded.

Anglers get used to events like that, McNabb said. "Right now, the water's going down, and I know a lot of places where it's good when it's down. In the spring, when the lake comes up, I've learned where the good spots are."

Because Lake Powell sits in a narrow river gorge, fluctuating water levels can uncover rocky outcrops and alter boat lanes. The National Park Service, which manages the lake's recreational amenities, is considering a plan to cut a deeper passage through Castle Rock, where exposed rocks have added 12 miles to a trip upstream.

"The problem is now we have to go through the narrows, between the cliffs, and smaller boats have to wait for the big ones to go through so they don't get caught in the wakes," McNabb said. "Sooner or later there's going to be an accident."

Environmental groups have protested the dredging plan, calling it a temporary fix that will degrade the canyon and the lakeshore. They say the

boat path, like the broader drought plan, risks the Colorado River's riparian health and ignores the threat of climate change.

Some of those groups proposed their own drought plan, which would have imposed stricter conservation measures. The states' plan, environmentalists say, relies too heavily on the river's past behavior.

"With the region in its longest recorded drought and reservoirs at below 50 percent capacity, it's amazing that the states would assume the Colorado of the future will mimic its high flow periods of the past," said Owen Lammers, executive director of the group Living Rivers.

Brad Udall, an environmental engineer at the Western Water Assessment in Boulder, Colo., helped analyze future climate shifts for the seven states. He said water managers need to consider that the river may behave differently.

"In the Southwest, almost all the models point to drier conditions," he said.

Scientists and decision makers must now figure out which models to believe.

The states say the drought plan before them now will help bridge the gap in scientific study and avoid paralyzing conflicts over water supplies.

"We now have a better understanding of the risks and what the impacts will be associated with those risks," said Wilson, the CAP executive.

The greater immediate risk was failing to reach an agreement and allowing the dispute to spill into a courtroom.

"Failure was not an option," said Pat Mulroy, general manager of the

Southern Nevada Water Authority. "Failure is uncertainty for all of us, it's chaos for all of us, it's spending public dollars in absolutely useless ways.

"You'll never get as good an arrangement from a judge," she said. "No matter how well-intentioned or how well-informed a judge is, he's still not responsible at the end of the day to deliver water to people. We are."

**Reach the reporter at [shaun.mckinnon@arizonarepublic.com](mailto:shaun.mckinnon@arizonarepublic.com).**