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Demand exceeded supply a decade ago in the Colorado River Basin, source of drinking water for Santa Fe and Albuquerque, and a federal study now under way suggests the problem is only going to get worse.

Dropping levels in Lake Mead have left a white “bathtub ring” as demand exceeds supply on the Colorado River. Photo Credit - The Associated Press

By 2035, according to new data released last month, annual demand for the basin’s water could exceed supply by 13 percent under the most likely scenario as use continues to grow while climate change reduces flows in the river. Such an imbalance is unsustainable, emptying the reservoirs on which the region depends, said University of Colorado professor Doug Kenney.

“That’s enough to crash the system,” Kenney said.

The risk for New Mexico, which is not yet using its full share, is that others may covet our underused allocation as supply-demand tension grows, said Estevan López, head of the New Mexico Interstate Stream Commission and acting state engineer.

“We should be working with the other states to try and make sure that the other states aren’t looking at water that New Mexico is entitled to,” López said in an interview this month.

López’s comments came as the U.S. Bureau of Reclamation begins the final phase of a two-year study intended to quantify the problems faced by Colorado River users and lay out possible solutions.

In a conference call for Western water managers last week, officials with the Bureau of Reclamation formally launched a search for solutions to try to close the gap between supply and demand.

The Colorado’s overall problem has long been well understood – an over-allocation of the river’s water during a wet period in the 1920s, combined with drought and a forecast of a long-term decline as a result of climate change. But it is only in recent years that the federal government and the seven states that share the river have begun acknowledging that increasing demand has finally surpassed its supply.

With storage behind dams equal to four times the river’s annual flow, the basin’s water users have had a cushion against long-term problems, Carly Jerla, the Bureau of Reclamation official leading the study, said in the conference call with water managers. But Jerla’s latest data, made public in a late November report, show the cushion disappearing.

“This is the first time ever people have acknowledged there is a demand and supply imbalance in the basin,” said Brad Udall, director of the Western Water Assessment, a research group based at the University of Colorado.

Jerla cautioned there are significant uncertainties in both the supply and demand numbers in the new study, especially about the size and speed of economic growth in the West, which drives water demand. She called it “a glimpse of potential imbalances that may occur.”

Jerla said the new supply-demand analysis provides “good information to start framing the challenges ahead.”

The Colorado’s water is currently shared among seven U.S. states and Mexico. The states of the Lower Colorado Basin – California, Arizona and Nevada – have long used their full allocation, and also in some cases consumed extra water unused by the other states. The Upper Basin states – New Mexico, Colorado, Utah and Wyoming – have developed more slowly and have yet to use their full share.

But that is changing. Santa Fe and Albuquerque, for example, have recently begun using imported Colorado River Basin water for municipal supplies.

In Colorado, two proposals are under discussion for a large new pipeline to serve the growing cities along

the east slope of the Rocky Mountains.

Utah officials are pushing for a new pipeline from Lake Powell to the St. George area.

And elsewhere in New Mexico, the Bureau of Reclamation is in the early stages of designing a pipeline to carry water to the eastern Navajo Nation and Gallup.

What is not clear, said Jennifer Pitt of the Environmental Defense Fund, is where shortages will be felt. Under the complex legal rules governing distribution of the river's water, it is possible that new uses in one area of the basin could lead to shortages in another.

In an effort to deal with the problem, the Bureau of Reclamation is soliciting ideas for ways of closing the supply and demand gap, Jerla said during the briefing. The agency is asking for suggestions across a wide range of possibilities, from ways of increasing supply, such as desalinating ocean water, to new conservation initiatives.

The agency is requesting ideas be submitted by Feb. 1. More information is available at www.usbr.gov/lc/region/programs/crbstudy/imbalanceoptions.html.

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