

The story of water in Arizona is really a story of two Arizonas: one rural, with little spare water; and one urban, where the residents of the fast-growing Phoenix metro area scarcely remember they live in a desert.

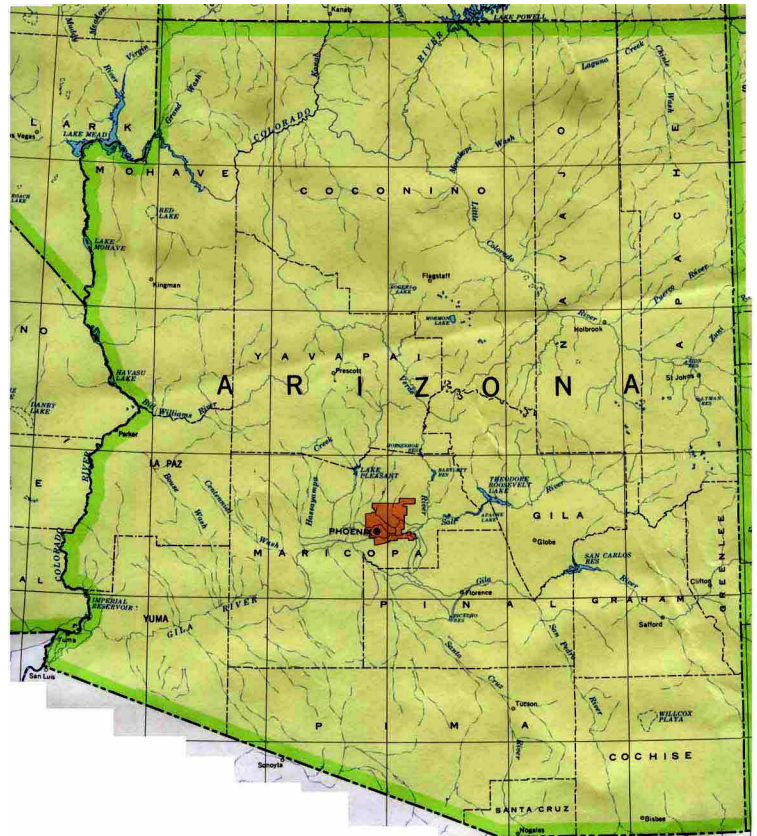
In rural towns across the state, wells are being dug ever deeper to reach groundwater. Some wells are dry part of the year, and often the water that is available is of poor quality.

But in Arizona's big cities, water is abundant. The \$4.7 billion Central Arizona Project pumps Colorado River water nearly 2,000 feet in elevation and through a 336-mile canal from the Arizona-California border to Phoenix and Tucson.

Of the 7.5 million acre feet of Colorado River water annually allocated to the three states downstream of Lake Powell, Arizona's 2.8 million acre feet is far more than the Grand Canyon State can economically use, for now. Much of the 1.5 million acre feet transported annually via the Central Arizona Project is simply pumped back into the ground near Phoenix and Tucson.

These groundwater recharge projects serve three purposes:

1. They recharge groundwater mined over the past century, recreating an underground reservoir that could be tapped during future drought.
2. They allow Arizona to pull its full 2.8 million acre feet from the Colorado River, even though there is not now a necessity for all of that water, at least not in the parts of Arizona that can be reached by the Central Arizona Canal and other diversions. By taking its full share of the Colorado River now, Arizona blocks California from being able to claim any more than the 4.4 million acre feet of Colorado River water allocated to the Golden State.
3. The water stored underground also is part of a water-banking scheme between Arizona and Nevada that will allow Nevada — specifically Las Vegas — to use more than its 300,000 acres feet of Colorado River water when the need arises in the future. And that future is short, since Nevada officials predict they will run out of existing supplies to feed any more growth in the Las Vegas area by 2007.



The bottom line for the Phoenix and Tucson metro areas is that they are flush with water, at least for now. But the Phoenix area, especially, is among the fastest growing places in the United States. Arizona water officials are hard pressed to discuss how they will supply any new growth beyond 2030, for even then the Central Arizona Project is projected to be fully tapped.

Beyond that, Arizona water officials begin talking of desalination of sea water, which would have to be pumped hundreds of miles. Already, though, a desalination plant near Yuma — intended to remove from

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Colorado River water, the accumulated salts of repeated agricultural use — was mothballed in the early 1990s because of its expense. After desalinization, talk goes to the even more improbable: icebergs towed from the arctic and waterways built across the Rocky Mountains to bring water from the Mississippi.

In rural Arizona, where building more canals to link to the Colorado River is too expensive, the limits of water availability already are being reached in places like Pine and Strawberry. Yet, Arizona's lax regulations governing real estate development means more and more people are tapping into smaller and smaller groundwater supplies. Many people are buying land with no access to water, opting to have it trucked.

Beyond the question of water availability is the problem of water quality in Arizona. In the urban areas, Phoenix has seen many of its wells shut down due to contamination by potentially cancer-causing industrial solvents. In the rural areas, contamination of water supplies from mining operations remains a constant threat, again due to Arizona's lax regulation.

All of this discussion glosses over the fact that so much of the once-mighty Colorado River is dammed and diverted that the trickle left flowing into Mexico no longer reaches the Gulf of California in most years. The lack of abundant fresh water inflow and nutrients — combined with excessive fishing — is devastating the ecology of the gulf.

Meanwhile, deals being brokered between Arizona and the U.S. Department of Interior are likely to result in more Central Arizona Project water (upwards of 40 percent) being given to some of Arizona's Indian tribes to settle long-standing water disputes.

Much of this water, however, will likely be sold or leased by the tribes to booming suburbs of Phoenix.

For now, Arizona forges ahead on the path of nearly unrestricted growth, though the newcomers here soon join with the old-timers in lamenting the relentless congestion.