

States Turn to San Diego for Water

Colorado River users pursue a rights deal for production from a desalination plant

By JIM CARLTON

SAN DIEGO—With the Colorado River in crisis, Arizona and Nevada are turning to an unconventional lifeline: the ocean water off California's golden beaches.

Both desert states are pursuing a deal with the San Diego County Water Authority to tap millions of gallons of fresh water produced by a Carlsbad ocean-desalination plant—the largest in North America—to help offset their reliance on the collapsing Colorado River.

The 1,450-mile river is in peril, a water source for 40 million people in seven states that is beset by population growth and a warming climate. Fed by the river, Lake Mead, America's largest reservoir, has dropped to an elevation of 1,060 feet, down 166 feet from its 1983 peak—with nearly 30 feet gone in just the past five years. A poor snow-pack this winter in the Rockies means it is forecast to keep falling.

The decline has triggered cutbacks, both mandatory and voluntary. Arizona users have already cut water consumption by nearly a third, and additional reductions loom. More Western states are hunting for alternatives, including the first-of-its-kind deal for San Diego's desalinated ocean water.

"It's not a silver bullet but several pieces of silver buckshot," said John Entsminger, general manager of the Southern Nevada Water Authority. He intends to sign an exploratory agreement with San Diego, along with his counterpart at Arizona's Department of Water Resources.

Pending federal and other approvals, Arizona, Nevada



A desalination plant in Carlsbad, Calif., above left, is the largest in North America. Above right, San Diego County Water Authority employees viewed a system diagram.

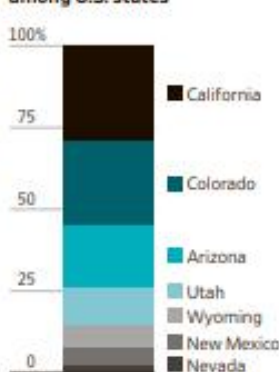


and other Colorado River users could strike water-transfer deals with the San Diego utility. No water is literally shipped; rather, the parties would trade access rights to water sources. States would fund much of the estimated 56,000 acre-feet of water that the desalination plant produces annually in exchange for San Diego's share of the Colorado River. The agreement could supply enough water for some 500,000 people.

So-called water transfers increasingly offset local shortages, and more of these deals are crossing state lines. Water agencies are also creating new supplies for trade, including by recycling sewage water or desalinating ocean water.

Both Nevada and Arizona are working with the Metropolitan Water District of Southern California to build a plant in Los Angeles County that can treat up to 165,000 acre-feet of sewage water—or enough for a city of 1.5 mil-

Colorado River allocations among U.S. states



Source: San Diego County Water Authority

lion—for the benefit of all three states.

Utah has expressed interest in investing in more Pacific Ocean desalination plants, with the aim of securing more rights to the Colorado River from California, which holds the largest share of any state. In February, Democratic Gov.

Gavin Newsom sent a letter to Utah's Republican Gov. Spencer Cox, calling that a good idea.

"There are going to be a lot of water utilities saying, 'Hey, I'm not using all the capacity in my plant, maybe I can sell it to Arizona,'" said Peter Fiske, a manager at the Energy Department's National Alliance for Water Innovation.

Costs and environmental restrictions have historically slowed California's desalination efforts. Now, in Santa Monica Bay, a group of agencies plan to test new technology that removes salt from water offshore—reducing the expense and environmental headaches of doing so on land.

The project, led by the Las Virgenes Municipal Water District and OceanWell Co., involves immersing pods the size of school buses into the ocean, more than 1,200 feet down. One goal: potentially produce a surplus and sell it.

"The ultimate endgame is

to develop a water farm, which would consist of multiple pods and supply multiple public agencies," said Robert Bergstrom, OceanWell's founder and CEO, as he balanced on a floating dock at the Las Virgenes reservoir, where a prototype pod was recently tested.

San Diego became a water broker by necessity. During a five-year drought that ended in 1992, the San Diego County Water Authority lost a third of its allocation, which came almost entirely from imported shipments.

Over the next three decades, the authority invested billions to achieve water independence. It raised the height of a dam to double its storage, built the desalination plant and acquired rights to a trove of conserved Colorado River water from a desert farming district. In doing so, San Diego cut its water imports to 10% from 95%.

Self-sufficiency came at a cost, as San Diego's water rates soared. Still, the city has largely escaped the water restrictions hitting other areas in recent droughts.

In fact, as supplies grew, San Diego residents have cut their water use nearly 50% over the past quarter-century—leaving the city with water to spare. When Nick Serrano joined the water authority board in 2021, the deputy chief of staff to San Diego's mayor saw potential revenue in the unused water. "My North Star is about affordability, and the way we can achieve that is we have an excess of water," said Serrano, now board chair of the authority.

The city of San Diego and others are recycling sewage, which will free up still more water. The city's recycled water, branded as "Pure Water San Diego," is already a hit with local craft breweries that like its low mineral content. AleSmith Brewing Co. used it in its sold-out Re:Beer, "a crisp, dry-hopped lager."